Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules Regarding Maritime Automatic Identification Systems	)	WT Docket No. 04-344
	)	
Petition for Rule Making Filed by National Telecommunications and Information Administration	)	RM-10821
	)	
Emergency Petition for Declaratory Ruling Filed by MariTEL, Inc.	)	

MEMORANDUM OPINION AND ORDER AND NOTICE OF PROPOSED RULE MAKING

Adopted: August 26, 2004 **Released: October 15, 2004**

Comment Date: 45 days after publication in the Federal Register
Reply Comment Date: 75 days after publication in the Federal Register

By the Commission:

TABLE OF CONTENTS

Title **Paragraph No.**

I. INTRODUCTION

1. We initiate this rulemaking proceeding to identify the spectrum that should be used for maritime Automatic Identification Systems (AIS) in the United States and its territorial waters. AIS is an important tool for enhancing maritime safety and homeland security, and we are concerned that recent developments may have created uncertainty in the maritime community regarding the very high frequency (VHF) channels to be used for AIS, and that this in turn could impede efforts to expedite the broad deployment of AIS. We have received conflicting petitions and other pleadings on this subject from the National Telecommunications and Information Administration (NTIA), which is representing the interests of the Federal Government, including the United States Coast Guard (USCG or Coast Guard)[1] and the Department of Transportation (including the Saint Lawrence Seaway Development Corporation) in this matter, and from MariTEL, Inc. (MariTEL), the licensee of all nine of the maritime VHF Public Coast (VPC) station service areas. Based on these petitions and pleadings, as well as responsive comments from other stakeholders in the maritime community, we propose to designate VHF maritime Channels 87B and 88B for exclusive AIS use domestically, in keeping with the international allocation of those channels for AIS, because we believe the use of those channels will best secure to the United States the maritime safety and homeland security benefits of AIS. In addition, we tentatively conclude that we should deny MariTEL's pending petitions that conflict with this proposal. We also determine that we should deny MariTEL's petition seeking a declaratory ruling that it has the exclusive right to use VHF maritime Channels 88A/B in certain areas within seventy-five miles of the United States-Canada border, subject only to coordination with Canada.

II. BACKGROUND

A. VHF Maritime Channels 87 and 88

2. The regulation of maritime radio communication by the Federal Government can be traced back to 1910,[2] and the maritime mobile service[3] is the oldest radio service administered by the Federal

[1] The Coast Guard, previously under the Department of Transportation, was transferred to the Department of Homeland Security by the Homeland Security Act of 2002, P.L. 107-296, 116 Stat. 2135, 2249 § 888(b) (2002).

[2] *See* Amendment of the Commission's Rules Concerning Maritime Communications, *Notice of Proposed Rule Making and Notice of Inquiry*, PR Docket No. 92-257, 7 FCC Rcd 7863, 7863 ¶ 2 (1992) (*1992 Maritime NPRM/NOI*) (observing that the Wireless Ship Act of 1910, Pub. L. No. 262, 36 Stat. 629 (1910), authorized the Secretary of Commerce and Labor to establish requirements for carriage of wireless equipment on vessels).

[3] The maritime mobile service is defined as a mobile service between coast stations and ship stations, or between ship stations, or between associated on-board communication stations. Survival craft stations and emergency position-indicating radio beacon stations may also participate in this service. A coast station is defined as a land station in the maritime mobile service. A ship station is defined as a mobile station in the maritime mobile service located on board a vessel which is not permanently moored, other than a survival craft station. 47 C.F.R. § 2.1(c).

Communications Commission (FCC or Commission).[4] VHF channels in the 156-162 MHz band are used in the maritime mobile radio service by ship stations at sea or on inland waterways to communicate with other ship stations or with coast stations. These maritime channels are available for safety communications, distress alerting, operational and navigational communications, and public correspondence communications.[5] The present proceeding principally involves VHF maritime Channels 87B (161.975 MHz) and 88B (162.025 MHz).[6]

3. Channel 87B is currently allocated for public correspondence, and Channel 88B is allocated to Federal Government non-military agencies.[7] A 1962 treaty between the United States and Canada provides for coordinated use of VHF maritime channels (as well as radio frequencies above 30 megacycles per second generally) in areas near the border of the two countries.[8] Under the 1962 treaty, Channel 88 is listed as a Canadian channel, but is assignable to United States stations within the frequency coordination zone, subject to successful coordination with Canada.[9]

4. In 1976, the Commission amended both its Table of Frequency Allocations and the predecessor rule parts to Part 80 of its Rules to allow public correspondence use of Channel 88 in the Great Lakes and the Saint Lawrence Seaway, in order to relieve frequency congestion in those areas.[10] In the Notice of Proposed Rule Making in that proceeding, the Commission stated, "The frequency 162.025 MHz is in the Government frequency band 162.0125-173.2 MHz, however, it has been cleared for the proposed usage. In areas other than the Great Lakes and Saint Lawrence Seaway, 162.025 MHz will continue to be used by Government stations."[11] In 1984, the Commission extended the use of Channel 88

[4] *See* Amendment of the Commission's Rules Concerning Maritime Communications, *Further Notice of Proposed Rule Making,* PR Docket No. 92-257, 10 FCC Rcd 5725, 5725 ¶ 2 (1995).

[5] *See* 47 C.F.R. § 87.373(f). Public correspondence communications are personal or private communications between two or more persons. Public correspondence is defined under the Part 80 Maritime Service Rules as "[a]ny telecommunication which the offices and stations must, by reason of their being at the disposal of the public, accept for transmission." 47 C.F.R. § 80.5.

[6] The 156-162 MHz maritime channels are designated numerically in accordance with a numbering scheme established at the International Telecommunication Union (ITU) World Administrative Radio Conference of 1967, and adopted by the Commission in 1968. *See* Amendment of Parts 2, 81, and 83 – Reduction of Channel Spacing to 25 kc/s, Allotment of Channels, Establishment of Revised Technical Criteria and Categories of Communication in the Maritime Mobile Service Band 156-162 Mc/s for VHF Radiotelephony, *Report and Order,* Docket No. 17295, 13 FCC 2d 874, 879 ¶¶ 17-18 (1968), *recon. denied,* 15 FCC 2d 819 (1969). Thus, for example, the frequency 156.800 MHz, the international VHF distress frequency, is designated VHF maritime Channel 16. *See* 47 C.F.R. §§ 80.371(c)(1)(i), 80.373(f).

[7] *See* Amendment of the Commission's Rules Concerning Maritime Communications, *Third Report and Order and Memorandum Opinion and Order*, PR Docket No. 92-257, 13 FCC Rcd 19853, 19875 ¶ 47 (1998) (*Public Coast Third Report and Order*) (citing 47 C.F.R. § 2.106 n.G5).

[8] *See* Exchange of Notes Between the Government of the United States of America and the Government of Canada Concerning the Coordination and Use of Radio Frequencies Above 30 Megacycles per Second, Attachments A through F (Oct. 24, 1962) (*Above 30 MHz Coordination Agreement*).

[9] *Id.; see also* 47 C.F.R. § 80.57. Channel 87 is listed as a United States channel under the treaty.

[10] *See* Amendment of Parts 2 and 83 – On the Great Lakes and Along the Saint Lawrence Seaway: To Change the Status of 157.425 and 162.025 MHz, to Form Them into VHF Channel 88, and to Make Channel 88 Available for Assignment to Ship Stations for Public Correspondence, *Report and Order*, Docket No. 20838, 62 FCC 2d 445, 445-46 ¶ 4 (1976) (*1976 Report and Order*).

[11] *See* Ship Stations for Public Correspondence — Great Lakes and Saint Lawrence Seaway, *Notice of Proposed Rule Making*, 41 Fed. Reg. 24914, 24914 (1976) (*1976 NPRM*).

for public correspondence to Puget Sound and the Strait of Juan de Fuca.[12] Consequently, note US223 to the Table of Frequency Allocations now reads:

> Within 75 miles of the United States/Canada border on the Great Lakes, the Saint Lawrence Seaway, and the Puget Sound and the Strait of Juan de Fuca and its approaches, use of coast transmit frequency 162.025 MHz and ship station transmit frequency 157.425 MHz (VHF maritime mobile service Channel 88) may be authorized for use by the maritime mobile service for public correspondence.[13]

B. Automatic Identification Systems

5. AIS is a maritime navigation safety communications system standardized by the ITU for use in collision avoidance and vessel monitoring and tracking. It employs on-board transponders, electronic charts, Differential Global Positioning System technology, and a technique called Self-Organizing Time Division Multiple Access (SOTDMA) to provide a VHF ship-to-ship and ship-to-shore radio service in which vessels and designated shore stations broadcast a unique identifier, coupled with safety-related data on, for example, ship positions, routes, dimensions, and navigational status. AIS-transmitted information can be received by similarly equipped vessels and shore stations in order to mitigate the risk of collisions and facilitate vessel monitoring and tracking.[14]

6. At the World Radiocommunication Conference of 1997 (WRC-97), Channels 87B and 88B were allocated internationally for AIS.[15] However, Administrations were permitted to designate other channels if Channels 87B and/or 88B were not available.[16] In December 2000, the International Maritime Organization (IMO) mandated that ships subject to the International Convention for Safety of Life at Sea (SOLAS) carry AIS transceivers.[17] In August 2001, the ITU approved an international standard for AIS equipment. This standard, ITU-R M.1371-1, contemplates that AIS equipment will operate on the internationally allocated AIS channels, *i.e.*, it defaults to Channels 87B and 88B.[18] The phase-in schedule

---

[12] *See* Frequency Allocations and Treaty Matters; General Rules and Regulations; Stations on Shipboard in the Maritime Services; Stations on Land in the Maritime Services and Alaska-Public Fixed Stations, *Report and Order*, Docket No. 83-664, 49 Fed. Reg. 11838 (1984).

[13] 47 C.F.R. § 2.106 n.US223; *see also* 47 C.F.R. § 80.371(c)(1)(i) n.3.

[14] *See* Amendments of Parts 13 and 80 of the Commission's Rules Concerning Maritime Communications, *Second Report and Order, Sixth Report and Order, and Second Further Notice of Proposed Rule Making*, WT Docket No. 00-48 & PR Docket No. 92-257, 19 FCC Rcd 3145, 3179 ¶ 64 (2004) (*GMDSS Second Report and Order*).

[15] *See* WRC-97 Final Acts (amending ITU Radio Regulations App. S18). Channel 87B was denominated AIS 1 and Channel 88B was denominated AIS 2. *Id.*

[16] *Id.*

[17] *See* Amendments to the International Convention for the Safety of Life at Sea, 1974, Chapter V, Regulation 19.2.4, "Carriage requirements for shipborne navigational systems and equipment," as amended by IMO Resolution MSC.99(73) – 2000 Amendments to the Safety of Life at Sea 1974 Convention, as Amended – London, 5 December 2000 (*IMO AIS Carriage Requirements*). The *IMO AIS Carriage Requirements* apply to all ships of 300 gross tons or more on international voyages, cargo ships of 500 gross tons or more not on international voyages, and all tankers and passenger ships, and to other ships as determined by the flag State. Passenger ships are defined under SOLAS as ships carrying more than twelve passengers.

[18] Recommendation ITU-R M.1371-1, "Technical characteristics for a universal shipborne automatic identification system using time division multiple access in the VHF maritime mobile band," with Annexes, at Annex 1, § 2.1.1, Table 2 (2001). In addition to ITU-R M.1371-1, applications for AIS equipment certification must meet the following standards: IMO Resolution MSC.74(69), IEC 61162-1, IEC 61162-100, and IEC 61993-2. *See* 47 C.F.R. § 80.1101(c)(12), as amended in the *GMDSS Second Report and Order; see also* IMO Resolution A.917(22), "Guidelines for the On Board Operational Use of Shipborne Universal Automatic Identification System."

for deployment of AIS began on July 1, 2002, and the IMO accelerated the schedule to require installation on all ships subject to SOLAS on international voyages by the first safety equipment survey after July 1, 2004, or by December 31, 2004, whichever is earlier, and on ships not engaged on international voyages by July 1, 2008.[19]

7. In the wake of the events of September 11, 2001, AIS has been recognized as an important tool in service of Maritime Domain Awareness (MDA), a critical component of homeland security.[20] On November 25, 2002, the President signed the Maritime Transportation Security Act of 2002 (MTSA), which mandates domestic deployment of AIS.[21] The MTSA directs the Coast Guard to promulgate regulations imposing AIS carriage requirements on certain vessels while they are operating on the navigable waters of the United States, namely, self-propelled commercial vessels of at least sixty-five feet in overall length; passenger vessels carrying more than a threshold number of passengers to be determined by the Coast Guard; and towing vessels of more than twenty-six feet in length and 600 horsepower.[22] The MTSA also empowers the Coast Guard to impose AIS carriage requirements on "any other vessel [if it is determined] that an automatic identification system is necessary for the safe navigation of the vessel."[23] The MTSA did not, however, specify that any particular channels must be used for AIS. Pursuant to the MTSA and the Ports and Waterways Safety Act of 1972,[24] in 2003 the Coast Guard and the Saint Lawrence Seaway Development Corporation adopted AIS carriage and operational requirements for specified classes of vessels.[25] These AIS regulations specify that equipment installed in satisfaction of the AIS carriage requirement must meet the performance standard established by the IMO and be approved as complying with, *inter alia*, ITU-R Recommendation M.1371-1, the

[19] *See IMO AIS Carriage Requirements*. The initial implementation schedule provided that vessels built on or after July 1, 2002 were required to carry AIS immediately. With respect to vessels built prior to July 1, 2002, passenger ships engaged on international voyages were required to carry AIS by July 1, 2003; tankers on international voyages were required to carry AIS by the first survey for safety equipment on or after July 1, 2003; and ships other than passenger ships and tankers were required to carry AIS by the following deadlines: July 1, 2004, for ships of 50,000 gross tons or more; July 1, 2005, for ships of 10,000 gross tons or more but less than 50,000 gross tons; July 1, 2006, for ships of 3,000 gross tons or more but less than 10,000 gross tons; and July 1, 2007, for ships of 300 gross tons or more but less than 3,000 gross tons. Ships not engaged on international voyages were required to carry AIS by July 1, 2008. The IMO subsequently adopted a United States recommendation to require the installation of AIS on all vessels on international voyages by 2004, while retaining the July 1, 2008 deadline for all vessels not on international voyages. *See* IMO Maritime Safety Committee, 75th Session, Agenda Item 17 – Prevention and Suppression of Acts of Terrorism Against Shipping; Automatic Identification System (submitted by the United States) – London, 15 January 2002.

[20] *See* U.S. General Accounting Office, *Homeland Security: Efforts to Improve Information Sharing Need to be Strengthened*, Report to the Secretary of Homeland Security (GAO-03-760 August 2003) (viewable at http://www.gao.gov/new.items/d03760.pdf) at 39 ("MDA is a concept that captures total awareness of vulnerabilities, threats, and targets of interest on the water. MDA is the comprehensive information, intelligence, and knowledge of all entities within America's waterways that could affect our safety, security, economy, or environment.").

[21] *See* P.L. 107-295, § 102(e), 116 Stat. 2082 (2002) (codified at 46 U.S.C. § 70114).

[22] *Id.* The statute also authorizes the Coast Guard to exempt vessels from AIS carriage requirements and to issue waivers of those requirements. *Id.*

[23] *Id.*

[24] *See* 33 U.S.C. §1221 *et seq.*

[25] *See, e.g.*, 33 C.F.R. §§ 161.21(a) (specifying that, unless otherwise directed, AIS-equipped vessels must make continuous, all stations, AIS broadcasts in lieu of Voice Position Reports), 164.46 (imposing mandatory carriage requirements on specified classes of vessels, with varying compliance deadlines of July 1, 2003, July 1, 2004, and December 31, 2004), and 401.20 (establishing AIS requirements for vessels transiting the Saint Lawrence Seaway).

international standard premised on AIS operating on Channels 87B and 88B.[26]

C. VHF Public Coast Stations and the *Public Coast Third Report and Order*

8. The maritime mobile radio service is comprised of both ship radio stations and land stations. The two major categories of land stations are public coast stations and private coast stations. Although private coast stations are limited to serving the operational and business needs of ships, public coast stations are permitted to also provide public correspondence services that can be interconnected to the public telephone network.[27] Accordingly, they are generally classified as commercial mobile radio service (CMRS) providers, and are subject to common carrier regulation.[28] In addition, however, coast stations are subject to special requirements in the interest of maritime safety.[29]

9. In July 1998, the Commission adopted the *Public Coast Third Report and Order*, amending Part 80 of the Commission's Rules to streamline the licensing process for VPC stations and promote regulatory symmetry in the treatment of VPC licensees vis-à-vis other CMRS providers.[30] In the *Public Coast Third Report and Order*, the Commission adopted a geographic area licensing approach for VPC stations. The Commission established predefined regional service areas for new licenses in lieu of the traditional site-based licensing approach.[31] It specifically established nine licensing regions near major waterways, terming them maritime VHF Public Coast areas,[32] and thirty-three inland licensing regions based on Economic Areas (EAs), terming those inland VHF Public Coast areas.[33] The Commission further determined that it would authorize just a single licensee to operate on all unassigned VHF public correspondence frequencies in each of the newly established regional service areas.[34] Incumbent site-based VPC licensees were permitted to continue operating, and incumbent licensees and geographic area licensees were required to afford each other interference protection.[35] In addition, the Commission affirmed an earlier determination that mutually exclusive applications for geographic area VPC licenses should be resolved through competitive bidding, pursuant to Section 309(j) of the Communications Act of

[26] *See* 33 C.F.R. § 164.46(a) Note; IMO Resolution A.917(22), "Guidelines for the On Board Operational Use of Shipborne Universal Automatic Identification System."

[27] *See 1992 Maritime NPRM/NOI*, 7 FCC Rcd at 7864 ¶ 7; 47 C.F.R. § 80.5.

[28] *See* 47 C.F.R. § 20.9(a)(5). Although presumptively classified as a CMRS provider under the Commission's Rules, a VPC licensee or applicant may propose to use VPC spectrum to provide private land mobile radio service. The licensee or applicant must certify to that effect and must demonstrate that the proposed service does not come within the definition of a commercial mobile radio service. 47 C.F.R. § 20.9(b), (b)(1).

[29] *See, e.g.*, 47 C.F.R. § 80.153 (requiring that operation of a coast station transmitter be performed by a person who is on duty at the station control point); §§ 80.301-80.303 (watch requirements); § 80.1119 (requirements to relay distress alerts to search and rescue personnel).

[30] *See* n.7, *supra*.

[31] *Public Coast Third Report and Order*, 13 FCC Rcd at 19859-60 ¶ 10. Under the site-based licensing approach, the VPC applicant proposed a base station site of its choosing by reference to geographic coordinates, and the service area was defined on the basis of predicted signal strength over the waterway to be served. Generally, the service areas of site-based VPC stations extend twenty to thirty miles from the transmitter.

[32] *Id.* at 19861-63 ¶¶ 14-16. The nine maritime VHF Public Coast areas roughly correspond with U.S. Coast Guard Districts. The regions served are Northern Atlantic (VPC 1), Mid-Atlantic (VPC 2), Southern Atlantic (VPC 3), Mississippi River (VPC 4), Great Lakes (VPC 5), Southern Pacific (VPC 6), Northern Pacific (VPC 7), Hawaii (VPC 8), and Alaska (VPC 9).

[33] *Id.* at 19861-62 ¶¶ 13, 15. EAs are areas designated and defined by the U.S. Department of Commerce.

[34] *Id.* at 19866 ¶ 25.

[35] *Id.* at 19863-64 ¶ 18.

1934, as amended (the Act),[36] and it adopted competitive bidding procedures for such auctions.[37] The Commission cautioned, in connection with its adoption of competitive bidding rules, that it "does not endorse any particular services, technologies, or products, and grant of an FCC license does not guarantee business success."[38]

10. In the *Public Coast Third Report and Order*, the Commission also determined to provide additional technical flexibility to VPC licensees. It observed that the ITU *Radio Regulations* had established a channel plan for VPC spectrum based on a 25 kHz channel bandwidth.[39] The Commission concluded that VPC licensees also should be permitted to use narrowband 12.5 kHz channels that are offset 12.5 kHz from the 25 kHz marine VHF band public correspondence channels where the licensee is authorized to operate on both adjacent frequencies or has acquired the consent of the licensee on the other side of the offset frequency.[40] In authorizing the use of these narrowband offset channels, the Commission noted that 12.5 kHz channelization had been approved for this maritime spectrum internationally at WRC-97,[41] and reasoned that without access to narrowband channel pairs, VPC licensees would be hampered in their efforts to compete effectively against other CMRS providers.[42]

11. In the *Public Coast Third Report and Order*, the Commission also adopted section 80.371(c)(3) of the Rules,[43] regarding AIS frequencies. The genesis of section 80.371(c)(3) is a petition for rulemaking filed by the Coast Guard on August 4, 1997, which the Commission elected to treat as a comment in the Public Coast proceeding.[44] The Coast Guard had requested that the Commission set aside two duplex channel pairs offset 12.5 kHz from the marine VHF band public correspondence channels, as well as VHF maritime Channel 228B (162.0125 MHz), for use in AIS and related safety systems in support of the Coast Guard's Vessel Traffic Services (VTS) program.[45] The Coast Guard had earlier established the Ports and Waterways Safety System (PAWSS) as an acquisition program to enhance its VTS operations, which are intended to prevent vessel collisions and other maritime accidents.[46]

---

[36] 47 U.S.C. § 309(j).

[37] *See Public Coast Third Report and Order*, 13 FCC Rcd at 19883-88 ¶¶ 64-73.

[38] *Id.* at 19858 ¶ 7.

[39] *Id.* at 19874 ¶ 44.

[40] *Id.* at 19874-75 ¶ 45; *see* 47 C.F.R. § 80.371(c)(1)(iii).

[41] *Public Coast Third Report and Order,* 13 FCC Rcd at 19874-75 ¶ 45 (citing Final Acts of the World Radiocommunication Conference (WRC-97), Geneva, 1997 (amending ITU Radio Regulations Art. S52, App. S18).

[42] *Id.*

[43] 47 C.F.R. § 80.371(c)(3).

[44] *See Public Coast Third Report and Order*, 13 FCC Rcd at 19875 ¶ 46.

[45] *See id.* VTS is a national transportation system that collects, processes, and disseminates information on the marine operating environment and maritime vessel traffic in major U.S. ports and waterways. The VTS program is administered by the Coast Guard under authority of the Ports and Waterways Safety Act of 1972, 33 U.S.C. §1221 *et seq.*

[46] The Coast Guard uses VTS systems as a mandatory communications service to coordinate vessel movement and prevent collisions in certain congested waterways or port areas. Information pertaining to, among other things, vessel position, navigation and conditions affecting navigation is transmitted to the Coast Guard, which tracks the vessels' movements and exchanges pertinent information to aid navigation in VTS areas. *See* 33 C.F.R. Part 161. VTS systems use VHF maritime channels that are dedicated to exclusive VTS operation in certain Coast Guard-designated VTS areas. The Coast Guard requires that vessels subject to the Bridge-to-Bridge Radiotelephone Act, P.L. 92-63, including certain large ships, passenger vessels and towing vessels participate in VTS. *See* Amendment of Part 80 of the Rules Concerning U.S. Coast Guard Vessel Traffic Services (VTS) Systems in Sault Ste. Marie,

(continued....)

12. The Commission took notice that Channels 87B and 88B had been set aside for AIS internationally at WRC-97, but that Administrations could select other frequencies if those were unavailable.[47] It also noted that Channel 87, including Channel 87B, was allocated to VHF public correspondence, and that Channel 88 was allocated to Government non-military agencies, but could be authorized in certain border areas for maritime public correspondence.[48] The Commission concluded that "the Coast Guard request should be granted, and two channel pairs (plus Channel 228B, where it is a maritime frequency) should be set aside in each maritime VPC for AIS."[49] The Commission added that it had considered designating Channel 87B as one of the AIS channels, but ultimately decided against doing so because "the public interest benefits flowing from such an approach are minimal as compared to the potential adverse impact on our licensing of public coast stations."[50] The Commission explained:

> First, setting aside Channel 87B as an AIS channel would require relocation of the thirty-four public coast stations currently authorized to use Channel 87. Second, we believe that setting aside one broadband channel and one narrowband channel for AIS might complicate AIS implementation or raise the cost of the necessary equipment. Third, this approach would encumber one broadband channel and *three* narrowband channels, instead of encumbering two narrowband channels as proposed by the Coast Guard, because setting aside Channel 87B would leave the surrounding narrowband channels unavailable. Finally, setting aside Channel 87B would harm maritime VPC licensees' ability to construct wide-area systems by leaving most with no more than eight broadband channels.[51]

13. The Commission concluded that, rather than designating channels for AIS by regulatory fiat, it would be better to rely in the first instance on negotiations between the Coast Guard and each individual maritime VPC area licensee to select channels for AIS use in the United States and its territorial waters. The Commission set a timetable for mandatory good faith negotiations, requiring initiation of such negotiations within six months after conclusion of the VPC license auction and requiring maritime VPC area licensees that object to a Coast Guard proposal to make a counterproposal within three months of receipt of that proposal.[52] If good faith negotiations failed to yield an agreement within one year of the

---

(...continued from previous page)
Michigan; San Francisco, California; and Morgan City, Louisiana, *Report and Order*, WT Docket No. 95-132, 11 FCC Rcd 12942, 12943 ¶ 3 (1996). The Commission first allocated maritime VHF channels for VTS in 1975. *See* Amendment of Parts 81 and 83 of the Rules to Designate in the Ports of New York and New Orleans the Frequencies 156.55 MHz, 156.6 MHz and 156.7 MHz (Very High Frequency Channels 11, 12 and 14) in the Maritime Mobile Service for Exclusive Use in the Vessel Traffic Services, *Report and Order*, Docket No. 20444, 56 FCC 2d 1089 (1975). At present, there are ten VTS areas. *See* 33 C.F.R. Part 161, Subchapter C. Eight of these VTS areas are protected by Commission regulations: New York City, New Orleans, Houston, Seattle (Puget Sound), San Francisco, Prince William Sound, Sault Ste. Marie, and Berwick Bay. *See* 47 C.F.R. § 80.383(b). Frequencies allotted for VTS communications may be used for other purposes outside the VTS areas, provided they cause no interference to VTS communications. *See* 47 C.F.R. § 80.383(c).

[47] *See Public Coast Third Report and Order*, 13 FCC Rcd at 19876 ¶ 47.

[48] *Id.* at 19875-76 ¶¶ 46-47.

[49] *Id.* at 19876 ¶ 48.

[50] *Id.* at 19876 ¶ 48. The Commission made no mention, in this context, of Channel 88, presumably because the Coast Guard's requested allocation of Channel 228B (162.0125 MHz) for AIS would preclude AIS use of Channel 88B (162.025 MHz).

[51] *Id.* at 19876-77 ¶ 48 (emphasis in original).

[52] *Id.* at 19877 ¶ 49.

date the Coast Guard submitted its initial proposal, the Commission said, "the Coast Guard may ask the Commission to revisit this issue and select the channels and locations."[53] The Commission concluded that this approach should be beneficial to the Coast Guard and the geographic area VPC licensees alike in comparison to immediate Commission designation of channels for AIS.[54] The approach adopted by the Commission is codified in section 80.371(c)(3), which states:

> VPCSA [VHF public coast station area] licensees may not operate on Channel 228B (162.0125 MHz), which is available for use in the Coast Guard's Ports and Waterways Safety System (PAWSS). In addition, within six months of the conclusion of the competitive bidding procedures to determine the licensees in each VPCSA, the U.S. Coast Guard shall submit to each licensee of VPCSAs 1–9 [*i.e.*, the maritime VPCSAs] a plan specifying up to two narrowband channel pairs offset 12.5 kHz from the channels set forth in the table in paragraph (c)(1)(i) of this section, for use in the PAWSS. The final selection of the PAWSS channel pairs can be negotiated (if the VPCSA licensee objects to the Coast Guard proposal, it shall make a counterproposal within three months) and established by an agreement between the parties. All parties are required to negotiate in good faith. If no agreement is reached within one year of the date the Coast Guard submitted its plan, the Coast Guard may petition the Commission to select the channel pairs.[55]

D. The VPC License Auction

14. On July 23, 1998, the Wireless Telecommunications Bureau (Bureau) announced that the auction of the 42 VPC licenses – FCC Auction No. 20 – was scheduled to begin on December 3, 1998.[56] On September 4, 1998, the Bureau announced in a public notice the procedures and minimum opening bids for the auction.[57] This *VPC Auction Procedures Public Notice* included a Due Diligence section, which specifically alerted potential bidders to (a) the need to provide interference protection to incumbent site-based VPC licensees and incumbent private land mobile radio licensees operating in the 156-162 MHz band; and (b) the existence of agreements between the United States and Canada that may affect the assignment and use of VHF frequencies in areas near the Canadian border.[58] In addition, the *VPC Auction Procedures Public Notice* cautioned prospective bidders to familiarize themselves with the *Public Coast Third Report and Order*.[59] Further, a September 21, 1998 Erratum to the *VPC Auction Procedures*

[53] *Id.*

[54] *Id.*

[55] 47 C.F.R. § 80.371(c)(3).

[56] *See* 156-162 MHz VHF Public Coast Station Spectrum Auction Scheduled for December 3, 1998; Comment Sought on Reserve Prices or Minimum Opening Bids and Other Auction Procedural Rules, *Public Notice*, 13 FCC Rcd 17612 (WTB 1998).

[57] *See* Auction of 156-162 MHz VHF Public Coast Station Service Licenses; Auction Notice and Filing Requirements for 42 Geographic Area Licenses Scheduled for December 3, 1998; Minimum Opening Bids and Other Procedural Issues, *Public Notice*, 13 FCC Rcd 19443, as corrected by Public Notices of September 8, 1998, and September 21, 1998 (WTB 1998) (*VPC Auction Procedures Public Notice*).

[58] *Id.* at 19446. The Auction No. 20 Bidder Information Package also contained Due Diligence sections in which prospective bidders were specifically alerted to the possibility that geographic area VPC operations in certain areas could be constrained by the need to protect incumbent licensees from interference or because of agreements between the United States and Canada. *See* Auction 20 Bidder Information Package at 47 (Tab A), 54-55 (Tab B) (1998). The Auction No. 20 Bidder Information Package and other documents pertinent to Auction No. 20 can be viewed on the Commission's web site at http://wireless.fcc.gov/auctions/20/releases.html#bip.

[59] *See VPC Auction Procedures Public Notice*, 13 FCC Rcd at 19447.

Public Notice added a note to the Due Diligence section specifically directing potential bidders to paragraphs 46-49 of the *Public Coast Third Report and Order, i.e.*, the discussion of the requirement to set aside spectrum for Coast Guard use, "[f]or information regarding other issues that may affect the availability of channels 87 and 88 throughout maritime and inland border VPCs."[60]

15. Auction No. 20 began as scheduled on December 3, 1998, with eight qualified bidders. The auction ended on December 14, 1998. MariTEL submitted the winning bids for all nine of the maritime VHF Public Coast areas, bidding $6,804,000 in aggregate for the nine licenses.[61] MariTEL[62] was duly licensed for the nine areas on May 19, 1999, and thus became subject to the Section 80.371(c)(3) requirement to negotiate with the Coast Guard to set aside two 12.5 kHz offset channel pairs for AIS.

E. The Coast Guard-MariTEL Memorandum of Agreement and the *June 2002 Public Notices*

16. On March 7, 2001, and pursuant to section 80.371(c)(3) of the Commission's Rules, the Coast Guard and MariTEL executed a Memorandum of Agreement (MOA) setting aside frequencies 157.375 MHz and 161.975 MHz for exclusive AIS use in VPCSAs 1-9.[63] The MOA was by its terms to continue in effect for a period of ten years, with automatic renewal thereafter for ten-year terms.[64] However, the MOA also included a provision for termination of the MOA by either party upon thirty days' written notice.[65] The Bureau announced that the parties had agreed to the MOA in a public notice released on April 13, 2001.[66]

17. By letter dated May 6, 2002, the Coast Guard informed the Bureau that NTIA had approved the use of Channels 87B and 88B throughout the United States and its possessions for AIS and related safety systems in support of homeland security as well as navigation safety.[67] The Coast Guard further informed the Bureau that it intended to operate AIS on Channels 87B (pursuant to the Coast Guard/MariTEL MOA) and 88B (pursuant to the NTIA authorization).[68] On June 13, 2002, the Bureau released a public notice relating this information, and adding that, until such time as the Commission establishes licensing, equipment certification and other requirements for AIS, "the Bureau will consider use of shipborne AIS equipment to be authorized by existing ship station licenses, including vessels that

---

[60] *See* Further Correction to Public Notice, Auction of 156-162 MHz VHF Public Coast Station Service Licenses, *Public Notice*, 1998 WL 564017 at [Second] Erratum n. 4.

[61] *See* VHF Public Coast Service Auction Closes; Winning Bidders in the Auction of 42 Licenses in the 156-162 MHz VHF Public Coast Service, *Public Notice*, DA 98-2542 (rel. Dec. 16, 1998).

[62] The nine licenses are held by separate wholly-owned subsidiaries of MariTEL. For convenience, we refer to the licensees simply as MariTEL.

[63] Memorandum of Agreement Between United States Coast Guard and the Maritime VHF Public Coast Area Licensee, March 7, 2001.

[64] MOA § VIII.A.

[65] MOA § VIII.B.

[66] *See* Wireless Telecommunications Bureau Announces the Selection of Two VHF Channel Pairs for the United States Coast Guard's Ports and Waterways Safety System, *Public Notice*, 16 FCC Rcd 7968 (WTB PSPWD 2001). Because Channels 87A/B are *non-offset* channels, and Section 80.371(c)(3) mandates that the parties negotiate to select *offset* channel pairs, the Commission also granted a waiver of Section 80.371(c)(3). *Id.*

[67] *See* Letter dated May 6, 2002 from J. Hersey, Chief, Spectrum Management Division, USCG, to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, FCC.

[68] *Id.*

are licensed by rule."[69] Two weeks later, on June 27, 2002, the Commission's Office of Engineering and Technology (OET) issued a second public notice pertaining to AIS equipment. In its public notice, OET indicated that, during the pendency of the rulemaking proceeding in which certification requirements for AIS equipment were under consideration, "the FCC Laboratory will coordinate review of applications for certification of AIS equipment with the United States Coast Guard to ensure that the equipment meets all applicable international standards and requirements."[70] The effect of these two public notices (*June 2002 Public Notices*), then, was to clarify that, in the interest of homeland security, deployment of AIS equipment designed to operate on Channels 87B and 88B could continue in the interim before AIS licensing, operating and equipment certification requirements were codified in the Commission's Rules.

18. At some point a disagreement developed between the Coast Guard and MariTEL as to what was required of the parties under the terms of the MOA. Citing the parties' failed efforts to "resolve the bandwidth and geography issues" dividing them, MariTEL gave the Coast Guard notice of its termination of the MOA on May 5, 2003, effective June 4, 2003.[71] While indicating that it remained willing to continue to negotiate with the Coast Guard to meet its obligations under Section 80.371 of the Commission's Rules, MariTEL stated that, by virtue of its termination of the MOA, "the full use of channel 87 will revert to MariTEL and the Coast Guard will no longer be permitted to employ VHF channel 87."[72] In addition, prior to the termination of the MOA, MariTEL informed the Commission that, due to a precipitous decline in voice traffic over its network, it would cease providing VPC service of any kind, effective June 6, 2003.[73] At present, MariTEL is not providing service on Channels 87 and 88, or on any other VPC channels.

F. The MariTEL and NTIA Petitions and Proposals

19. MariTEL and NTIA have filed a number of pleadings that relate to VHF maritime Channels 87 and 88 and to AIS implementation within the United States.[74] On April 4, 2003, prior to the

[69] Wireless Telecommunications Bureau Announces Use of an Additional Frequency for the United States Coast Guard's Ports and Waterways Safety System, *Public Notice*, 17 FCC Rcd 10960 (WTB PSPWD 2002) (*Additional Frequency Public Notice*).

[70] Applications for Equipment Authorization of Universal Shipborne Automatic Identification Systems to be Coordinated with U.S. Coast Guard to Ensure Homeland Security, *Public Notice*, 17 FCC Rcd 11983 (OET 2002). The Commission identified the relevant international standards and requirements, including ITU-R 1371-1. *Id.* at 11983 n.2.

[71] *See* Letter dated May 5, 2003 from Dan Smith, President/CEO, MariTEL, to Capt. Richard S. Hartman, Jr., Chief, Office of Communications System, USCG.

[72] *Id.* Subsequently, MariTEL afforded the Coast Guard a six-month transition period. *See* Letter dated May 27, 2003 from Dan Smith, President/CEO, MariTEL, to Capt. Richard S. Hartman, Jr., Chief, Office of Communications, USCG. The Coast Guard asserted that the terms of the MOA provided a six-month transition period beginning thirty days after MariTEL notified the Coast Guard of its termination of the MOA. *See* Letter dated Sept. 16, 2003 from Rear Admiral C.I. Pearson, U.S. Coast Guard Director of Information and Technology, to Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, Enclosure 4 n.22.

[73] *See* MariTEL, Inc. Request for Waiver and Extension of Construction Deadline, FCC File No. 0001252148 at 3 n.4 (filed Mar. 27, 2003). This is one of nine waiver and construction extension requests filed by MariTEL, one for each of the nine VPCSA licenses. MariTEL filed identical requests for each of these licenses.

[74] We do not intend here to resolve all pending matters involving MariTEL or VPC stations. For example, MariTEL filed a still-pending petition for rulemaking seeking additional flexibility for VPC stations to provide private land mobile radio service to units on land. MariTEL, Inc., Petition for Rulemaking, RM-10743 (filed May 16, 2003.) The issues raised by that petition, as well as a companion petition for rulemaking filed by Mobex, Inc., are being addressed in a separate proceeding. *See* MariTEL, Inc and Mobex Network Services, LLC Petitions for Rule Making to Amend the Commission's Rules to Provide Additional Flexibility for AMTS and VHF Public Coast Station Licensees, *Notice of Proposed Rule Making*, WT Docket No. 04-257, FCC 04-171 (rel. July 30, 2004). In

(continued....)

termination of the MOA, MariTEL filed a petition for declaratory ruling[75] regarding the use of Channels 88A/B above "Line A," an area encompassing that portion of the continental United States that is within approximately seventy-five miles of the Canadian border.[76] MariTEL seeks a ruling that it holds the exclusive right in the United States to operate on the paired frequencies in specified areas above Line A, subject only to coordination with the government of Canada.[77] MariTEL argues that note US223 to the Table of Frequency Allocations,[78] the note specifying that Channel 88 may be authorized for maritime public correspondence use in the Great Lakes, the Saint Lawrence Seaway, and the Puget Sound and the Strait of Juan de Fuca, reflects an intention to make Channel 88 available exclusively for public coast station use in those areas.[79] The Bureau requested comment on the *MariTEL Channel 88 Petition* on July 9, 2003.[80]

20. On October 15, 2003, after the MOA was terminated, MariTEL filed an Emergency Petition for Declaratory Ruling requesting that the Commission clarify that shipborne AIS transmitters may not operate on Channels 87B and 88B or any other channels designated for VPC stations.[81] According to MariTEL, with the termination of the MariTEL/USCG MOA, there is no longer any basis for authorizing shipborne AIS stations to operate on Channel 87B, yet the *June 2002 Public Notices* have created uncertainty on that score.[82] MariTEL therefore asks the Commission to clarify that the *June 2002 Public Notices* do not authorize shipborne AIS stations to operate on Channels 87B and 88B.[83] MariTEL asserts that if the *June 2002 Public Notices* were in fact intended to authorize the use of Channels 87B and 88B by ship stations, they would violate the Administrative Procedure Act (APA) because they would have effectively amended section 80.371(c)(3) of the Commission's Rules without complying with the notice-

---

(...continued from previous page)
addition, we note that on December 4, 2003, the Bureau granted MariTEL's request for a waiver and two-year extension of the five-year construction requirement applicable to geographic area VPC licensees under 47 C.F.R. § 80.49(a)(1). MariTEL, Inc., *Order*, 18 FCC Rcd 24670 (WTB PSPWD 2003) (*MariTEL Construction Extension*). Pursuant to the waiver and extension, MariTEL is not required to demonstrate that it is providing substantial service within these service areas until May 19, 2006. On January 5, 2004, the Coast Guard filed an Application for Review of the grant of the waiver and extension to MariTEL. The Application for Review remains pending.

[75] MariTEL, Inc. Petition for Declaratory Ruling (filed Apr. 4, 2003) (*MariTEL Channel 88 Petition*).

[76] *See* 47 C.F.R. §§ 1.928(e), 2.1.

[77] The *MariTEL Channel 88 Petition* is concerned solely with the use of Channel 88 in the United States in the Great Lakes, Saint Lawrence Seaway, and Puget Sound and the Strait of Juan de Fuca and its approaches above Line A. *MariTEL Channel 88 Petition* at 1-2 n.2.

[78] 47 C.F.R. § 2.106 n.US223.

[79] *See MariTEL Channel 88 Petition* at 4-6.

[80] *See* Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Petition for Declaratory Ruling Regarding the Use of Maritime VHF Channel 88, *Public Notice*, 18 FCC Rcd 14250 (WTB PSPWD 2003).

[81] MariTEL, Inc., Emergency Petition for Declaratory Ruling (filed Oct. 15, 2003) (*MariTEL Emergency Petition*), supplemented Oct. 27, 2003 (*MariTEL Emergency Petition Supplement*). In addition, MariTEL requests that, in light of the termination of the *USCG-MariTEL MOA*, we withdraw authorization of shipborne AIS equipment that was authorized pursuant to the *June 2002 Public Notices*. *See* Letter dated July 30, 2003 from Russell H. Fox, counsel for MariTEL, to D'wana R. Terry, Chief, Public Safety and Private Wireless Division, FCC (*July 30 Letter Request*). The *July 30 Letter Request* raises essentially the same issue and seeks essentially the same relief as the *MariTEL Emergency Petition*, and our resolution of the *MariTEL Emergency Petition*, *infra*, applies equally to the *July 30 Letter Request* for the same reasons.

[82] *MariTEL Emergency Petition* at 1, 7, 9.

[83] *Id.* at 7

and-comment rulemaking procedures mandated by the APA.[84]

21. On October 24, 2003, NTIA filed a Petition for Rulemaking urging the Commission to work with NTIA to allocate Channels 87B and 88B for exclusive AIS use on a shared Federal Government/non-Federal Government basis.[85] NTIA says that Channels 87B and 88B need to be used in the United States for AIS operations that are essential for maritime safety and homeland security.[86] According to NTIA, because Channels 87B and 88B are designated internationally for AIS use on the high seas as wideband channels, each comprising 25 kHz of spectrum, designating Channels 87B and 88B for AIS domestically will ensure a seamless worldwide AIS operation.[87] Otherwise, vessels entering U.S. waters would have to identify and switch to other AIS channels, and this switching of channels could have adverse consequences for maritime safety by increasing the risk of collisions.[88] In addition, NTIA contends that a failure to designate Channel 87B for AIS would compromise the ability of the United States and Canada to monitor international commercial maritime traffic in, for example, the Saint Lawrence Seaway, and would otherwise compromise the ability of the U.S. to coordinate with other countries.[89] In a November 7, 2003 public notice, the Commission requested comment on both the *NTIA Petition* and the *MariTEL Emergency Petition*.[90]

22. On November 7, 2003, MariTEL proposed that it serve as AIS frequency coordinator, offering this proposal as an avenue for resolving the present controversy in a manner that gives the Coast Guard access to the spectrum it desires for AIS while at the same time protecting MariTEL's interests as the maritime VPC licensee.[91] Under this proposal, in lieu of providing narrowband channel pairs to the Coast Guard pursuant to Section 80.371(c)(3) of the Commission's Rules, MariTEL would accommodate the NTIA's request for nationwide use of channel 87B for AIS in a wideband simplex mode while remaining the licensee of the channel, "charged with administration of the channel for the benefit of the Coast Guard and mariners."[92] As the exclusive AIS frequency coordinator, MariTEL would, for a fee, process Maritime Mobile Service Identity (MMSI)[93] applications and maintain a database of all AIS transponders on vessels, irrespective of whether the vessels' carriage of the transponder is mandatory or voluntary, including foreign flag vessels required to carry AIS equipment under the SOLAS Convention.[94] MariTEL also proposes to process MMSI applications for all shore stations and aids to

[84] *Id.* at 7-8.

[85] Letter dated Oct. 24, 2003 from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC, RM-10821 (*NTIA Petition*).

[86] *Id.* at 1.

[87] *Id.* at 2.

[88] *Id.*

[89] *Id.* at 3-4.

[90] Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Petition for Declaratory Ruling and National Telecommunication and Information Administration Petition for Rulemaking Regarding the Use of Maritime VHF Channels 87B and 88B, *Public Notice*, 18 FCC Rcd 23260 (WTB PSPWD 2003) (*AIS PN*).

[91] Letter dated November 7, 2003 from Dan Smith, President and CEO, MariTEL, to Catherine W. Seidel, Deputy Chief, Wireless Telecommunications Bureau, FCC (*MariTEL Frequency Coordinator Proposal*).

[92] *Id.* at 1.

[93] An MMSI is a unique nine-digit number assigned to commercial and recreational vessels participating in the Global Maritime Distress and Safety System (GMDSS). Required under the ITU *Radio Regulations*, the MMSI functions as a "phone number" for the vessel and must be programmed into the vessel's digital selective calling (DSC) radio. MMSIs are also used for AIS transponders.

[94] *Id.* at 2-3.

navigation.[95] MariTEL adds that, for an additional fee, it would provide AIS Information Services, including vessel location services derived from real-time data, to vessel operators, port and harbor authorities, and state and local governments.[96] In a public notice released on November 19, 2003, the Bureau solicited comment on the *MariTEL Frequency Coordinator Proposal*.[97]

23. On February 9, 2004, MariTEL submitted an alternative proposal that it believes would resolve this controversy in a manner favorable to the Coast Guard and the maritime community as well as itself.[98] Specifically, MariTEL states that it would support the *NTIA Petition* for the reallocation of Channels 87B and 88B for exclusive AIS use, and that it would not seek payment from either the Coast Guard or ship station licensees as a prerequisite to allowing them to use spectrum licensed to MariTEL for AIS, provided that a sharing plan developed by MariTEL is adopted by the Commission.[99] Under the *MariTEL Sharing Proposal*, (a) NTIA would authorize the use of Channel 88B by only the Coast Guard, MariTEL, and ship stations for AIS, giving MariTEL access to that Federal Government Channel 88B in return for MariTEL providing the Coast Guard and mariners with free access to Channel 87B; (b) the Coast Guard would use the two channels for shore station operations to support VTS and surveillance applications for homeland security that are consistent with the MTSA, but its use of the channels would be confined to those purposes; and (c) MariTEL would have the right to use the two channels in all maritime areas for shore station operations to support non-Coast Guard AIS applications.[100] According to MariTEL, the proposed sharing can be accomplished using channel loading and time slot allocation, and could be implemented in such a way that Coast Guard and ship station use of the channels for safety and homeland security communications would always have priority over other types of communications.[101] The *MariTEL Sharing Proposal* is also premised on the Commission's adoption of regulations precluding reception and use of AIS transmissions except by MariTEL, the Coast Guard, and ship stations.[102] MariTEL also requests that the Commission suspend its current AIS equipment authorization process pending consideration of MariTEL's proposed new methodology for determining whether AIS devices adhere to emissions mask limitations that will ensure that 25 kHz simplex operations on Channels 87B and 88B do not cause interference to adjacent duplex maritime channels.[103] On February 13, 2004, the

[95] *Id.* at 3. An aid to navigation is any device external to a vessel (or aircraft) intended to assist a navigator to determine position or safe course, or to warn of dangers or obstructions to navigation. *See* 33 C.F.R. § 62.3(a). In the context of MariTEL's proposal, we assume the term refers to radionavigation coast stations operated for the benefit of mariners.

[96] *MariTEL Frequency Coordinator Proposal* at 3.

[97] Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Proposal to Serve as Automatic Identification System (AIS) Frequency Coordinator, *Public Notice*, 18 FCC Rcd 24057 (WTB PSPWD 2003) (*Coordinator Proposal PN*).

[98] Letter dated February 9, 2004 from Dan Smith, President and CEO, MariTEL, to Catherine W. Seidel, Deputy Chief, Wireless Telecommunications Bureau (*MariTEL Sharing Proposal*).

[99] *Id.* at 2.

[100] *Id.*

[101] *Id.* at 3-4.

[102] *Id.* at 2.

[103] *Id.* at 5. Channels used in full-duplex mode allow transmissions to occur in two directions simultaneously, *i.e.*, both parties can communicate at once. In simplex mode, the channel is used for one-way communications, so that one party only transmits on the channel and the other party only receives on the channel. (In half-duplex mode, both parties can transmit on the channel but only one at a time, as with a walkie-talkie.)

Commission requested comment on the *MariTEL Sharing Proposal*.[104]

III. MEMORANDUM OPINION AND ORDER

24. In this *Memorandum Opinion and Order*, we address the issue raised in the *MariTEL Channel 88 Petition*: Does MariTEL have the exclusive right to use Channels 88A/B[105] in areas above Line A, subject only to coordination with Canada? Based on our review of the record and analysis of the pertinent regulatory history, we conclude that, while MariTEL is the only non-Government licensee eligible to use the spectrum, it is not entitled to exclusive use of the channels above Line A. Accordingly, we deny the *MariTEL Channel 88 Petition*.[106]

25. MariTEL asserts that the *1976 NPRM*[107] and note US223 to the Table of Frequency Allocations clearly evince an intent by the Commission that Channel 88 should be used exclusively for public correspondence in the relevant geographic areas above Line A, subject only to coordination with the Canadian government.[108] It contends that, in adopting note US223, the Commission specifically determined that use of Channel 88B for public correspondence in the Great Lakes and the Saint Lawrence Seaway should not be subject to coordination with any Federal Government operations on the channel.[109] We disagree. The language of note US223 is merely permissive; it provides that Channel 88 *may* be authorized for use by the maritime mobile service for public correspondence. Standing alone, the permissive language of note US223 simply does not support MariTEL's assertion that the note should be interpreted as effectively reallocating Channel 88B from Federal Government to exclusive non-Federal Government use in those areas above Line A. Nor can an intent to reallocate Channel 88B in this manner be discerned from a reading of note US223 in conjunction with the *1976 NPRM* and other pertinent regulatory history.[110] As noted, there is no allocation for non-Federal Government use of Channel 88B in the Table of Frequency Allocations. We do not believe this is an administrative oversight, as MariTEL

[104] *See* Wireless Telecommunications Bureau Seeks Comment on MariTEL, Inc. Proposal for Shared Use of Maritime VHF Channels 87B and 88B for Automatic Identification Systems, *Public Notice*, 19 FCC Rcd 2666 (WTB PSCID 2004) (*Sharing Proposal PN*).

[105] We note that Channel 88B is allocated exclusively to the Federal Government, but Channel 88A is allocated exclusively for non-Federal Government use. *See* 47 C.F.R. § 2.106. Although the *MariTEL Channel 88 Petition* seeks a declaratory ruling pertaining to Channels 88A/B, and the disputed spectrum is sometimes referred to in the pleadings simply as Channel 88, the point of contention appears to be over the use of Channel 88B. NTIA does not assert rights paramount to MariTEL with respect to Channel 88A.

[106] In addition to the *MariTEL Channel 88 Petition*, we have in the record of this proceeding a written *ex parte* presentation by NTIA, Letter dated August 1, 2003 from Frederick R. Wentland, Associate Administrator for Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC (*NTIA Channel 88 Comments*), and MariTEL's responsive written *ex parte* presentation, Letter dated August 11, 2003 from Russell H. Fox, Mintz Levin Cohn Ferris Glovsky and Popeo PC, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC (*MariTEL Channel 88 Reply*).

[107] *See* n.11, *supra*.

[108] *See MariTEL Channel 88 Petition* at 3-5.

[109] *Id.*

[110] MariTEL relies on the language in the *1976 NPRM* stating that Channel 88B "has been cleared for the proposed usage [*i.e.*, public correspondence]. In areas other than the Great Lakes and Saint Lawrence Seaway, 162.025 MHz will continue to be used by Government stations." *MariTEL Channel 88 Petition* at 4; *MariTEL Channel 88 Reply* at 3. We do not believe the quoted language unambiguously indicates an intent to provide for *exclusive* public correspondence use of Channel 88B in the Great Lakes and Saint Lawrence Seaway, particularly given the absence of any language limiting Federal Government use of the channel. As noted above, however, MariTEL did obtain the exclusive right to use Channel 88 for non-Government public correspondence.

asserts,[111] inasmuch as note G5 to the Table clearly specifies that the frequency band 162.0125–173.2 MHz, the spectrum block encompassing Channel 88B, is allocated to Federal Government non-military agencies.[112] We believe that if the Commission and NTIA had intended to alter a Federal Government allocation of Channel 88, or otherwise restrict Federal Government use of Channel 88 above Line A, they would have done so expressly. We agree with NTIA that note US223, like a number of other notes to the Table of Frequency Allocations, simply authorizes the Commission to make the channel available for a specified non-government use, subject to prior coordination with NTIA and any limitations set forth in the notes.[113]

26. MariTEL argues that the Auction No. 20 bidder information package informed prospective bidders that use of Channel 88 was subject to Canadian coordination,[114] but did not notify them of any requirement to coordinate with NTIA.[115] It contends that it was therefore entitled to conclude that there was no Federal Government coordination requirement, and the geographic area VPC licensee would hold the exclusive right to operate on Channel 88 in the United States along the Canadian border.[116] First, we disagree with MariTEL regarding the contents of the bidder information package. After the bidder information package noted the Canadian coordination requirement, it referred the reader to the *Public Coast Third Report and Order*.[117] The cited portion of the *Public Coast Third Report and Order,* in turn, expressly states that "Channel 88B is allocated to Government non-military agencies."[118] Thus, we agree with NTIA that the bidder information package put prospective bidders on notice of the potential preclusive effect of Federal Government operations on Channel 88.[119]

27. Moreover, even assuming *arguendo* that the bidder information package did not disclose the need to coordinate operations on Channel 88 with the Federal Government, MariTEL was not entitled to assume that something was not the case simply because it was not mentioned in the bidder information package.[120] The bidder information package is but one tool the Commission utilizes to provide information to auction participants,[121] and bidders are not entitled to rely on it as their sole source for

[111] *MariTEL Channel 88 Petition* at 4-5 n.12; *see also MariTEL Channel 88 Reply* at 4 (contending that the omission of an entry in the "Non-Federal Government" column of the Table of Frequency Allocations providing a Channel 88 allocation for VPC stations was "no more than a ministerial oversight").

[112] *See* 47 C.F.R. § 2.106 n.G5; *see also NTIA Channel 88 Comments* at 1 and n.4.

[113] *See NTIA Channel 88 Comments* at 3.

[114] As MariTEL recognizes, coordination with Canada is required under Section 80.57 of the Commission's Rules, 47 C.F.R. § 80.57. *See MariTEL Channel 88 Petition* at 2.

[115] *MariTEL Channel 88 Petition* at 5-6.

[116] *Id.* at 6; *MariTEL Channel 88 Reply* at 5.

[117] Auction 20 Bidder Information Package at 56 (Tab B) (1998).

[118] *Public Coast Third Report and Order*, 13 FCC Rcd at 19875 ¶ 47.

[119] *See NTIA Channel 88 Comments* at 4-5.

[120] *See* Cellular Service and Other Commercial Mobile Radio Services in the Gulf of Mexico, *Order on Reconsideration*, WT Docket No. 97-112, 18 FCC Rcd 13169, 13182 ¶ 41 (2003) (rejecting argument that absence of discussion in bidder information package indicated that Commission had foreclosed the possibility of creating a licensing area in the Gulf of Mexico at some time in the future); Two Way Radio of Carolina, Inc., *Memorandum Opinion and Order*, 14 FCC Rcd 12035, 12043 ¶ 13 (1999) (*Two Way Radio*) (rejecting the argument that bidder should be allowed to change its small business classification after the close of the auction simply because the bidder information package did not explicitly prohibit it); *see also* Melodie A. Virtue, *Letter*, 15 FCC Rcd 2824, 2824-25 (WTB AIAD 2000).

[121] Black Hills Broadcasting, L.L.C., *Order*, 14 FCC Rcd 16146, 16148 ¶ 5 (WTB AIAD 1999).

interpretation of the Commission's Rules.[122] Indeed, the public notice announcing the procedures and minimum opening bids for Auction No. 20 specifically instructed bidders that it was their responsibility to remain current with the Commission's Rules.[123] A thorough review of the Commission's Rules would have alerted bidders of the possible need to coordinate Channel 88 operations with NTIA.

28. Finally, MariTEL argues that the Commission has never auctioned spectrum subject to Federal Government rights (other than at specified locations), and should not be deemed to have done so here.[124] We disagree, for the Commission has in fact used competitive bidding to assign geographic licenses for spectrum on which the Federal Government also may operate.[125] More fundamentally, we reject as unsupported the tacit premise of this argument, that the Commission implicitly guarantees auction participants that any spectrum they are awarded will not be subject to or need to be coordinated with Federal Government operations. We do not believe reliance on such a supposition is reasonable.[126] Rather, the Commission has consistently required potential bidders to perform due diligence, assuring themselves of familiarity with the Commission's Rules. MariTEL cannot reasonably claim to not have received adequate notice that Channel 88B is allocated to the Federal Government; it need only have reviewed the portions of the Table of Frequency Allocations, and the associated notes, pertaining to the spectrum for which it intended to bid. We accordingly conclude that MariTEL has only the exclusive right to use Channel 88 in the specified areas above Line A for non-Government public correspondence, but it does not have the right to use the spectrum free of Federal Government operations and subject only to coordination with Canada.[127]

29. We further conclude that, under note US223, MariTEL must coordinate with NTIA as well as with Canada prior to initiating public correspondence operations on Channel 88B above Line A. Since Channel 88B is allocated to the Federal Government in the Section 2.106 Table of Frequency Allocations, its use for non-Government public correspondence communications pursuant to note US223 is governed by Section 2.102(c) of our Rules.[128] Section 2.102(c) specifies that non-Government stations may be authorized to use Federal Government frequencies in the bands above 25 MHz only after Commission

[122] *Two Way Radio*, 14 FCC Rcd at 12043 ¶ 13.

[123] *See VPC Auction Procedures Public Notice*, 13 FCC Rcd at 19448.

[124] *MariTEL Channel 88 Petition* at 6 n.17.

[125] *See* Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands, *Report and Order and Second Notice of Proposed Rule Making*, ET Docket No. 95-183, 12 FCC Rcd 18600, 18612 ¶ 18, 18615 ¶ 25 (1997) (adopting geographic licensing rules and competitive bidding procedures for the 38.6-40.0 GHz band, while noting that the 39.5-40.0 GHz segment of the band is allocated on a co-primary basis to Government military systems that would be implemented in the future).

[126] MariTEL argues that the Auction 20 Bidder Information Package plainly indicated that the Commission intended to auction rights to use Channel 88B north of Line A. *See MariTEL Channel 88 Reply* at 5. This does not suggest, however, that the Commission intended to auction *exclusive* rights to the channel in that geographic area, notwithstanding MariTEL's claim that, without exclusivity above Line A, the spectrum would be worthless to the auction winner. *MariTEL Channel 88 Petition* at 6; *MariTEL Channel 88 Reply* at 5.

[127] We note, moreover, that it is unclear that such status on Channel 88B above Line A would have been of significant value to MariTEL in light of the representations made to the Commission by the Embassy of Canada. Noting that under the *Above 30 MHz Coordination Agreement*, Canada has the right to preclude any U.S. assignments of Channel 88 above Line A, the Embassy states that Channel 88B, along with Channel 87B, has been reserved in Canada "for the exclusive purpose of AIS operations, by land and mobile stations in the maritime mobile service, and will no longer be available for public correspondence in Canada." Canadian Embassy Comments at 2-3. Even if we had granted the *MariTEL Channel 88 Petition* in full, according MariTEL exclusive authority to operate on Channel 88 above Line A, subject only to Canadian coordination, such a victory would be of limited benefit to MariTEL if Canada steadfastly refuses to coordinate public correspondence operations.

[128] 47 C.F.R. § 2.102(c).

consultation "with the appropriate Government agency or agencies," and provided that, *inter alia*, the non-Government operation conforms with the conditions agreed upon by the Commission and NTIA, and does not cause harmful interference to Government stations.[129] Thus, any proposed use of Channel 88B above Line A for public correspondence must be coordinated in advance with NTIA and Canada.[130] Given that NTIA has determined that Channel 88B should be used exclusively for AIS, it is clear that successful coordination of a proposed public correspondence service offering will depend on assurances that AIS will have priority over public correspondence, and that AIS communications will not be subject to harmful interference from public correspondence communications.[131]

IV. NOTICE OF PROPOSED RULE MAKING

A. Designation of Channels for AIS

30. As we have discussed, Section 80.371(c)(3) of the Commission's Rules directs the licensee of VPCSAs 1-9, *i.e.*, MariTEL, and the Coast Guard to negotiate in good faith to select two narrowband offset channel pairs to be dedicated to AIS use, and specifies that if an agreement cannot be reached, the Coast Guard may petition the Commission to select the channel pairs.[132] Although MariTEL and the Coast Guard did in fact reach an agreement to designate frequencies 157.375 MHz and 161.975 MHz for AIS and executed the MOA to that effect, MariTEL later exercised its right to terminate the MOA. Following termination of the MOA, NTIA petitioned the Commission on behalf of the Coast Guard to select Channels 87B and 88B[133] for AIS and to work with NTIA to reallocate the channels for exclusive AIS use nationwide on a shared Federal Government/non-Federal Government basis.[134] We have carefully considered the various proposals submitted by MariTEL and NTIA, including their technical submissions, and the comments filed in response to the various public notices.[135] We tentatively agree

[129] 47 C.F.R. § 2.102(c), (c)(1), (c)(3). We observe that nothing in note US223, the *1976 NPRM* or the *1976 Report and Order* expresses an intention inconsistent with Section 2.102(c) in this regard.

[130] Accordingly, prior to initiating any new public correspondence operations on Channel 88B above Line A, MariTEL must file an individual application with the Commission, see 47 C.F.R. s 80.371(c)(4)(ii), which the Commission will coordinate with NTIA through the Interdepartmental Radio Advisory Committee (IRAC) and with Canada through Industry Canada. MariTEL may not initiate any new public correspondence operations on Channel 88B above Line A without completing IRAC coordination.

[131] To date, MariTEL has not initiated coordination through the Commission with NTIA or Canada for authorization to use Channel 88B above Line A. Should MariTEL intend at some future point to provide public correspondence service in the areas above Line A, we do not anticipate that NTIA would withhold consent to such proposed MariTEL operations unreasonably, *i.e.*, other than to protect genuine Federal Government interests.

[132] 47 C.F.R. § 80.371(c)(3).

[133] We note that this request pertains to Channel 88B only in the geographic areas above Line A identified in note US223. In the rest of the country, Channel 88B is a Government frequency, and already has been designated for AIS use. *See Additional Frequency Public Notice*, 17 FCC Rcd at 10960.

[134] MariTEL expresses willingness to resume negotiations with the Coast Guard, and urges the Commission to direct the parties to resume good faith negotiations. MariTEL Comments at 17-19; *accord* Havens Reply Comments at 2-3. However, the Coast Guard and NTIA have expressed no similar willingness. Moreover, we believe we need to act now, without further delay, in order to provide the maritime community with certainty and stability with respect to AIS implementation in the United States.

[135] As noted, three separate public notices requested comment on this subject: the *AIS PN* (inviting comment generally on both the *MariTEL Emergency Petition* and the *NTIA Petition*); the *Coordinator Proposal PN* (inviting comment limited to the *MariTEL Frequency Coordinator Proposal*); and the *Sharing Proposal PN* (inviting comment limited to the *MariTEL Sharing Proposal*). In the interest of clarity, we will refer to comments filed by a party in response to the *AIS PN* simply as the party's Comments or Reply Comments, while comments filed in response to the *Coordinator Proposal PN* or *Sharing Proposal PN* will be referred to as Comments re Coordinator Proposal or Comments re Sharing Proposal, as appropriate. All three sets of comments have been incorporated into

(continued....)

with NTIA and the Coast Guard, as well as the vast majority of interested parties who filed comments in response to the public notices concerning this matter, that the public interest would be served by designating Channels 87B and 88B[136] for exclusive AIS use in the nine maritime VPCSAs.[137] We therefore grant the *NTIA Petition* to the extent that it seeks initiation of a rulemaking proceeding to consider this issue, deny the *MariTEL Emergency Petition*,[138] and adopt the instant *Notice of Proposed Rule Making* in which we propose to designate Channels 87B and 88B for exclusive AIS use in the nine maritime VPCSAs. We tentatively conclude, moreover, that neither the *MariTEL Frequency Coordinator Proposal* nor the *MariTEL Sharing Proposal* should be adopted, because the *NTIA Petition* offers a better means of promoting the widespread and effective use of AIS for maritime safety and homeland security.[139]

31. MariTEL opposes the *NTIA Petition*, asserting that shipborne transmission of AIS messages on Channels 87B and 88B on a wideband simplex basis, as proposed by NTIA, will preclude MariTEL from using not only those two channels, but all or almost all of the VPC spectrum for which it is licensed.[140] According to MariTEL, it will result in destructive interference to both MariTEL's operations and the operation of site-based incumbent VPC licensees, and will prevent MariTEL from recouping its substantial investment in the spectrum.[141] MariTEL states that granting the NTIA request without providing for compensation to MariTEL would be unfair to MariTEL and would have a chilling effect on

(...continued from previous page)
the record of this rulemaking proceeding. *See* Appendix A for a list of all of the commenters, and the acronyms or abbreviations by which they are referred to in the text.

[136] Since non-Federal Government use of Channel 88B is limited to that authorized by note US223, *i.e.*, within the specified areas above Line A, our proposal with respect to Channel 88B is similarly circumscribed. In the remainder of the country, Channel 88B is allocated for exclusive Federal Government use, and NTIA already has authorized the use of the channel for AIS. *See Additional Frequency Public Notice*. Thus, there is no need for the Commission to redesignate Channel 88B for AIS except with respect to the specified areas above Line A. Accordingly, references herein to Commission action regarding Channel 88 should be construed to refer only to the use of that channel in the specified areas above Line A, unless otherwise indicated.

[137] The *NTIA Petition* asks that we reallocate Channel 87B for exclusive AIS use nationwide, and reallocate Channel 88B for such use in those areas where it is within our authority, *i.e.*, in the areas above Line A, as NTIA already has with respect to Channel 88B in the rest of the country. It is unclear whether NTIA intends that non-AIS use of Channels 87B and 88B be prohibited throughout the United States, or just in the nine maritime VPCSAs, or on some other geographic basis. Section 80.371(c)(3) specifies that channels be designated for AIS use only in VPCSAs 1-9, and we are not persuaded on the record compiled thus far that it is essential to the interference-free operation of AIS that we prohibit non-AIS use of the channels outside VPCSAs 1-9. *See* ¶ 63, *infra*.

[138] Given the Commission's determination to initiate this rulemaking and deny the *MariTEL Emergency Petition*, we do not address Nauticast's argument that MariTEL does not have standing to file the *MariTEL Emergency Petition* because it has not provided specific evidence of how it will be injured by the use of Channels 87B and 88B for AIS. *See* Nauticast Comments at 7-8. We also disagree with RTCM to the extent it argues that we can and should resolve this matter summarily because MariTEL has voluntarily terminated its VPC operations for business reasons, and so has no current commercial operations on Channel 87B to protect. *See* RTCM Comments at 2-3. As noted above, the Commission has granted MariTEL a two-year extension of its build-out deadline. *See* n.74, *supra*.

[139] NTIA and others have described the designation of Channels 87B and 88B for AIS as essential or necessary to implementation of AIS. *See, e.g., NTIA Petition* at 1; NTIA Reply Comments at 1-2; Lockheed Martin Comments at 4-5. We do not reach the question of whether the use of other channels is technically feasible because we believe that, even if so, the relative benefits of using Channels 87B and 88B are great and should be given paramount weight.

[140] *See MariTEL Emergency Petition* at 10-11; *see also MariTEL Supplement to Emergency Petition* at 3.

[141] *See MariTEL Emergency Petition* at 10-11. MariTEL says that AIS operations on Channels 87B and 88B under these conditions would make the spectrum unusable to MariTEL even for land mobile operations in close proximity to AIS operations. *Id.*; see *also* MariTEL Reply Comments re Sharing Proposal at 9.

future auctions, causing prospective auction participants to think twice before placing bids.[142] In MariTEL's view, it would also constitute a *per se* regulatory taking, entitling MariTEL to just compensation either in cash or in alternative spectrum.[143]

32. In addition, MariTEL contends that NTIA has not demonstrated why the Commission's earlier determination in the *VPC Third Report and Order* not to codify specific channels for AIS in the Rules was incorrect, or why circumstances have changed in a manner that makes the Commission's earlier decision invalid.[144] MariTEL further contends that, with the termination of the MOA between MariTEL and the Coast Guard, there is no longer any legal basis to permit AIS operations on Channel 87.[145] MariTEL adds that the Coast Guard can easily use other channels for AIS if Channels 87B or 88B are unavailable,[146] and that the United States should not allocate Channels 87B and 88B for AIS simply because other countries have designated those channels for AIS.[147]

33. In response to MariTEL's arguments, we note at the outset that the *Memorandum Opinion and Order* herein clarifies that MariTEL is entitled to use Channel 88B only in a geographically

[142] *See* MariTEL Comments at 11; MariTEL Reply Comments at 6; *accord* Havens Reply Comments at 2. In addition, AMTA states that, whatever the merits of MariTEL's and NTIA's respective arguments with respect to the specific issues addressed herein, on which AMTA does not take a position, the Commission should take care to avoid taking any action that would undermine the integrity of the auction process. AMTA is concerned that significant post-auction changes to the rules governing the use of the licensed spectrum would create uncertainty in the auction process. *See* AMTA Reply Comments at 2-3.

[143] *See* MariTEL Comments at 13-15; MariTEL Reply Comments at 6.

[144] *See* MariTEL Comments at 10-11; MariTEL Reply Comments at 4-5. MariTEL also contends that granting the *NTIA Petition* would violate Section 80.371(c) of the Commission's Rules as it is presently constituted because both channels are designated in the rule for coast station transmissions (and therefore may not be used for ship station transmissions), *see MariTEL Emergency Petition* at 7, and because the rule in any event provides only for the Coast Guard's use of two narrowband offset channel pairs on a duplex basis. *See* MariTEL Comments at 10; *accord* Tittle Reply Comments at 2. We agree with MariTEL that designating Channels 87B and 88B for AIS requires notice-and-comment rulemaking, and we have accordingly initiated the instant rulemaking proceeding for that purpose.

[145] *See MariTEL Emergency Petition* at 9. MariTEL argues that the *June 2002 Public Notices* violate the APA if they are construed as authorizing the use of Channels 87B and 88B by ship stations for AIS because they would alter the requirements of Section 80.371(c) without public notice or opportunity for comment. *MariTEL Emergency Petition* at 7-8. The *June 2002 Public Notices*, issued by the Bureau under delegated authority, clearly did not purport to amend Section 80.371(c), but simply apprised the maritime community, in accord with the MOA (and NTIA's authorization of Channel 88B for AIS) and without timely objection from MariTEL, that pending completion of a rulemaking on the subject, (a) use of shipborne AIS equipment designed to operate on Channels 87B and 88B was authorized under existing ship station licenses, and (b) the FCC Laboratory would coordinate with the Coast Guard in reviewing applications for certification of AIS equipment to ensure conformance with applicable international standards and requirements. *See* ¶ 17, *supra*. We believe MariTEL's APA challenge to the *June 2002 Public Notices* is both inapposite and extremely untimely, coming as it does approximately sixteen months after the *June 2002 Public Notices* were released. We believe, in any event, that the initiation of this notice-and-comment rulemaking ensures that a final decision on the spectrum to be used for AIS will be made only on the basis of a complete record compiled in compliance with APA procedural requirements, and effectively moots MariTEL's APA-based arguments and the responsive arguments, and we therefore see no need to consider whether the military exemption to APA rulemaking requirements, 5 U.S.C. § 553(a)(1), might apply to the *June 2002 Public Notices*, or whether the *June 2002 Public Notices* might be deemed logical outgrowths of antecedent rulemaking proceedings. *See* Nauticast Comments at 12-13; MariTEL Reply Comments at 11-13.

[146] *See MariTEL Emergency Petition* at 9-10; MariTEL Reply Comments at 12-13.

[147] *See* MariTEL Reply Comments at 7-8. MariTEL states that the Commission is required to conform to international frequency allocations or equipment standards only when the U.S. public interest warrants such action. *Id.*

circumscribed area, *i.e.*, within 75 miles of the United States-Canada border, and, more importantly, that MariTEL is entitled to use Channel 88B in that geographic area for public correspondence only after successful coordination with both NTIA and Canada, and on a non-interference basis to Federal Government operations on the channel.[148] Channel 88B is and always has been a Federal Government channel under the control of NTIA at all relevant times, including the period prior to the VPC auction. NTIA has determined that Channel 88B should be used for AIS exclusively, and has already authorized the Coast Guard and the maritime community to use Channel 88B for AIS. Accordingly, we do not consider Channel 88B as entirely MariTEL's to give up. Our analysis of the impact of our proposal on MariTEL will therefore focus on the impact to MariTEL of Channel 87B being set aside for AIS in lieu of two narrowband duplex channel pairs. Under existing Section 80.371(c)(3), MariTEL is subject to providing up to two 12.5 kHz narrowband channel pairs for AIS, so the total amount of spectrum potentially to be set aside for AIS is 50 kHz. Our proposal, in contrast, requires that only a single 25 kHz channel, Channel 87B, be designated for AIS from the VPC spectrum to which MariTEL currently has primary status throughout VPCSAs 1-9. Thus, our proposal would require MariTEL to set aside for AIS use only one half of the total spectrum contemplated under Section 80.371(c)(3). We do not by this observation intend to suggest that the relative impact of the proposed AIS set-aside on MariTEL's operations vis-à-vis a set-aside of two narrowband channel pairs can be determined conclusively by simply looking to the total amount of spectrum involved in each alternative. We recognize, for example, that the proposed use of Channel 87B on a simplex rather than a duplex basis must also be factored in, along with the fact that the use of Channel 87B will encumber three narrowband channels. But we do believe that the total amount of VPC spectrum to be set aside is a consideration. We invite comment on this tentative conclusion.

34. We also note, as a preliminary legal matter, that MariTEL has no vested right to the continuation without change of the VPC rules that were in effect when it formulated its bids in Auction No. 20. It is well established that the Commission retains the power to alter the terms of existing licenses by rulemaking.[149] It also has been established that the Commission retains this power to alter the terms of existing licenses even with respect to licenses acquired through the auction process.[150] Indeed, the Act expressly provides that the statutory provisions regarding spectrum auctions do not "diminish the authority of the Commission ... to regulate or reclaim spectrum licenses" and should not be construed "to convey any rights ... that differ from the rights that apply to other licenses ...."[151] Here, we are not proposing to change the terms of any of MariTEL's licenses, but proposing only to change the terms of the AIS set-aside codified in Section 80.371(c) of the Commission's Rules. Our legal authority to take this action is not in issue. The question before us is whether and under what terms the designation of Channels 87B and 88B for AIS would be sound domestic policy.[152]

---

[148] *See* ¶¶ 24-29, *supra*.

[149] *See, e.g., United States v. Storer Broadcasting Co.*, 351 U.S. 192, 205, 76 S. Ct. 763, 100 L. Ed. 1081 (1956); *National Broadcasting Co. v. United States*, 319 U.S. 190, 225, 63 S. Ct. 997, 87 L. Ed. 1344 (1943); *Committee for Effective Cellular Rules v. FCC*, 53 F.3d 1309, 1319-20 (D.C. Cir. 1995); *WBEN, Inc. v. FCC*, 396 F.2d 601, 617-18 (2d Cir. 1968).

[150] *See Celtronix Telemetry, Inc. v. FCC*, 272 F. 3d 585, 589 (D.C. Cir. 2002), *cert. denied*, 536 U.S. 923, 122 S. Ct. 2589, 153 L. Ed. 2d 778.

[151] 47 U.S.C. § 309(j)(6)(c), (j)(6)(D).

[152] MariTEL argues that too many questions remain about NTIA's proposal to justify the immediate adoption of a final rule designating Channels 87B and 88B for AIS. *See* MariTEL Comments at 17-19. We believe our decision to initiate this Notice of Proposed Rule Making and augment the record on this matter before taking final action effectively moots this argument. We also believe that we need not give further attention to MariTEL's argument that the Commission should not amend its Rules to conform with international standards unless to do so would serve United States interests. We clarify that our aim in this proceeding is to reach a resolution that will best advance the

(continued....)

35. We disagree with MariTEL's contention that the record does not reveal that circumstances have changed since the adoption of the *VPC Third Report and Order* in 1998 such that the Commission's decisions therein, in particular the decision mandating identification through negotiation of two narrowband duplex channel pairs for AIS, need to be revisited. Most obviously, the termination of the MOA suggests that reliance on negotiation to identify the VPC spectrum to be used for AIS may no longer be in the public interest. We believe that at this juncture the Commission needs to step in to codify the AIS channels, in the interest of providing certainty to the maritime community and encouraging widespread deployment of AIS. In addition, the need for wideband simplex operation of AIS was not foreseen in 1998 when the Commission determined that two narrowband channel pairs would be sufficient. NTIA states that it was initially thought that AIS could be operated on narrowband channels, but that subsequent technical analysis and operational experience now confirm that effective use of AIS for both maritime safety and homeland security requires the use of wideband channels.[153] Further, the tragic events of September 11, 2001, have underscored the importance of AIS in protecting the United States against terrorist attack, in turn heightening the importance of ensuring that AIS is implemented quickly, widely, and effectively. In 1998, moreover, there existed a possibility that many other nations might also opt out of the international standard, and employ channels other than Channels 87B and 88B for AIS in their territorial waters, but that has not happened. We now understand that if the United States employs channels other than Channels 87B and 88B for AIS, it will be departing from the approach adopted by the rest of the international maritime community almost without exception.[154] The use in the United States of channels other than Channels 87B and 88B would thus preclude a seamless worldwide or near-worldwide AIS network that might otherwise be established. Finally, as noted above, a primary reason that the Commission declined in 1998 to designate Channel 87B for AIS use was the potential impact on co-channel site-based incumbents.[155] Now, in light of industry consolidation and a downturn in the maritime public correspondence market,[156] there are only seven co-channel site-based incumbents.[157] We believe, in sum, that these developments occurring after the adoption of Section 80.371(c)(3) in 1998 warrant revisiting the domestic AIS spectrum allocation.

36. MariTEL also argues that the Coast Guard can easily use other VPC channels for AIS if Channels 87B and 88B are unavailable, but it does not identify specific alternative channels, does not represent that any alternative channels would be better suited for AIS or otherwise better advance the public interest, and, for that matter, does not explain why the use of any other of its licensed VPC channels for AIS would be more advantageous to MariTEL's commercial interests. On the other hand, commenters overwhelmingly favor the designation of Channels 87B and 88B for domestic AIS use, and

(...continued from previous page)
domestic public interest. (In addition, we find MariTEL's apparent argument that the Commission cannot at this juncture adopt a rule that accords with international standards simply because it did not do so initially in adopting Section 80.371(c)(3) to be without merit. *See* MariTEL Reply Comments re Sharing Proposal at 5, 8, 14.)

[153] *See NTIA Petition* at 3. We note that the Coast Guard asserts that it was clear to both parties when they negotiated the MOA that the selection of Channels 87A/B referred to 25 kHz channels *See* USCG Reply Comments at 2. (The USCG Reply Comments were submitted to NTIA and then submitted to the Commission as an attachment to NTIA's Reply Comments.) We need not and do not attempt to resolve the issue of whether the parties to the MOA contemplated wideband or narrowband channels.

[154] *See, e.g.*, Lockheed Martin Comments at 4 (observing that the use of Channels 87B and 88B for AIS "is rapidly becoming the de facto standard throughout the world").

[155] *See Public Coast Third Report and Order*, 13 FCC Rcd at 19877 ¶ 48.

[156] *See MariTEL Construction Extension*, 18 FCC Rcd at 24670-71 ¶ 3 ("[MariTEL] now believes that the advent and proliferation of other wireless technologies, such as cellular and personal communications services, has drastically reduced the market for VPC voice communications.").

[157] We address the impact of our proposals on these remaining incumbents *infra* at ¶ 65.

identify a number of important public interest benefits from the use of those channels.

37. Designating Channels 87B and 88B for AIS in the United States and its territorial waters will permit seamless worldwide AIS operations.[158] If the United States were to designate channels other than 87B and 88B for AIS, vessels entering United States waters would have to switch to those alternative channels, instead of being able to use the same channels that were employed in international waters. Commenters indicate that requiring such switching would increase the risk of vessel collisions.[159] If ships must switch channels as they approach and transit an AIS "fence" between international and United States waters, there is a risk that they will disappear temporarily from the screens of vessel traffic management systems as well as from the screens of AIS receivers located on the bridges of vessels.[160] RTCM says that these gaps in AIS coverage could be especially problematic in busy maritime border areas where maintaining port security is critical, such as San Diego, Puget Sound, and U.S. possessions in the Caribbean.[161]

38. Further, domestic use of Channels 87B and 88B for AIS would facilitate the speedy and efficient deployment of AIS, allowing the United States to take full advantage of existing AIS standards and infrastructure. According to some commenters, mandating the use of other channels could prolong implementation schedules for future PAWSS installations and delay full implementation of AIS as a component of homeland security because of the need for additional technical analysis, possible design changes, and conceivably more extensive shore infrastructure to accommodate AIS channel shifting.[162] In addition, AIS operations on Channels 87B and 88B already have been deployed in, for example, the Saint Lawrence Seaway. A switch to other channels on the United States side would not only necessitate a costly reconfiguration of the AIS network on the Seaway but, more importantly, would compromise the ability of the United States to coordinate with Canada in monitoring vessel traffic on the Seaway and in other areas, since Canada uses Channels 87B and 88B for AIS.[163] In addition to implementation delays and coordination difficulties, the use of channels other than 87B and 88B would affect the United States adversely because it would cause the U.S. Government to expend considerably more time, money and resources to implement a domestic AIS infrastructure.[164]

39. We agree with NTIA that designating specific channels for AIS should provide greater

---

[158] *See NTIA Petition* at 2; Lockheed Martin Comments at 4-5; Nauticast Comments at 9; SLSMC Comments at 1; RTCM Comments at 2; NMEA Comments at 1.

[159] *See NTIA Petition* at 2; Nauticast Comments at 10-11.

[160] *See* Lockheed Martin Comments at 5; *see also* MMC Comments at 3-4 (asserting that if the U.S. is forced to use a channel other than 87B for AIS, ships approaching the AIS fence will be at risk of collision due to less frequent updating of position and identification data).

[161] *See* RTCM Comments at 3.

[162] *See* Lockheed Martin Comments at 5; Nauticast Comments at 10.

[163] *See NTIA Petition* at 3-4; *see also* SLSMC Comments at 2 (stating that MariTEL's proposal may "render unusable" the AIS system already deployed in the Seaway); Canadian Embassy Comments at 3 (strongly discouraging the designation of channels other then 87B and 88B for AIS in the United States because of the difficulties which would result from using AIS frequencies in the United States that differ from the AIS frequencies used in Canada). NTIA points out that there would be similar problems in coordinating with other nations if the United States alone uses channels other than 87B and 88B. *NTIA Petition* at 3-4.

[164] *See NTIA Petition* at 5. Canada fully supports the *NTIA Petition*. *See* Canadian Embassy Comments at 3 (stating that "Canada strongly shares the view that the implementation of AIS on channels 87B and 88B is a matter of national and international importance with respect to ensuring the safety and security of ship movement in the Great Lakes and Saint Lawrence Seaway. Like the NTIA, we believe that these concerns must take precedence over any conflicting claims by any other stakeholders.")

regulatory certainty, which in turn should encourage investment in AIS technology.[165] Calling for another round of negotiations to identify channels for AIS would likely result in greater delay before this critical issue could be definitively resolved, and the resultant uncertainty would doubtless retard the pace of AIS deployment in the United States. Further, a resolution premised on a new MOA between the parties would still leave open the possibility that either party would terminate that future MOA, returning us to the present predicament.[166] Specifically designating AIS channels in the Commission's Rules, in contrast, would eliminate that possibility. Therefore, we see important public interest benefits in designating specific channels for AIS, and the record developed thus far overwhelmingly militates in favor of designating Channels 87B and 88B for this purpose rather than any other channels.[167] In addition, although MariTEL opposes our proposal, at least insofar as it is not linked to simultaneous adoption of the *MariTEL Frequency Coordinator Proposal* or the *MariTEL Sharing Proposal*, we believe it is in the interest of MariTEL to have this matter resolved expeditiously with some degree of certainty. Resolving the issue through a rulemaking will allow MariTEL to adjust its business plans, as needed, on the basis of a clear understanding that Channels 87B and 88B, and not different channels, will be used domestically for AIS. We invite comment on our tentative conclusion that the public interest will be served by designating Channels 87B and 88B exclusively for AIS use.

40. We also propose to eliminate note US223 to the Table of Frequency Allocations if we adopt our proposal to designate Channels 87B and 88B for exclusive AIS use in all maritime VPCSAs inasmuch as VPCSAs 1, 5 and 7 completely encompass the areas above Line A identified in note US223. We invite comment on this proposal. As an alternative to deleting note US223, we could modify the note to make clear that AIS communications are to be accorded priority over all other communications on Channel 88B in the specified areas. We accordingly request comment on whether we should modify note US223 in lieu of deleting it. Finally, although we here propose to provide for AIS use of Channels 87B and 88B on a wideband simplex basis, we note that MariTEL asserts that AIS can be deployed in the United States using duplex narrowband channels, notwithstanding the inconsistency with the international standards. We ask commenters to address the question of whether it is truly essential that AIS be provided in the United States using wideband simplex channels, or whether the use of narrowband duplex channels is a reasonable alternative. Commenters favoring the use of narrowband duplex channels should describe the public interest benefits to be derived from such an approach, including the potential to mitigate interference between AIS and VPC operations.

B. Interference Issues

41. The gist of MariTEL's opposition to the NTIA proposal to designate Channels 87B and 88B for AIS is that it would cause harmful interference to MariTEL's VPC operations to a much greater extent than would the designation of two duplex narrowband channel pairs.[168] Indeed, MariTEL claims that the

[165] *Id.*; *see also* APA Comments re Sharing Proposal at 4.

[166] NTIA and supporting commenters also express great reservations over any regulatory scheme that would allow a private company such as MariTEL to dictate the use of frequencies needed for AIS, as might be the case if MariTEL retained a unilateral right to terminate any future MOA assigning frequencies for AIS. *See, e.g., NTIA Petition* at 4; Nauticast Comments at 11; BoatUS Comments I at 1.

[167] We also note that using channels other than Channels 87B and 88B could have adverse economic consequences for manufacturers and vessel operators. *See, e.g.*, Nauticast Comments at 10-11 (claiming that the use of other channels would disadvantage AIS equipment manufacturers that developed AIS equipment to operate on Channels 87B and 88B in reasonable reliance on the MOA and the *June 2002 PNs*); MMC Comments at 4 (claiming that the use of other channels would increase the costs of the Class B AIS transceivers likely to be purchased by small pleasure boats since the receivers will have to be frequency agile, and the higher costs would act as a disincentive to voluntary AIS carriage).

[168] We note that two site-based incumbent VPC licensees have argued that the *NTIA Petition* should be denied or conditioned because of the potential interference impact on incumbent operations. ShipCom Comments at 3-5;

(continued....)

interference would be of such a magnitude that MariTEL could not commercially exploit any of its licensed geographic area VPC spectrum, not just the AIS-designated channels. For the reasons that follow, we tentatively conclude that the proposed designation of Channels 87B and 88B for AIS should not have an adverse effect on MariTEL's use of its VPC channels to a materially greater extent, if at all, than would designation of two narrowband offset channel pairs of the Commission's choosing.[169]

42. MariTEL and NTIA each submitted an analysis of potential interference to public correspondence (PC) frequencies from AIS transmissions. The interference analysis submitted by MariTEL was prepared by inCode Telecom Group, Inc. (inCode),[170] and the analysis submitted by NTIA was prepared by the Department of Defense Joint Spectrum Center (JSC).[171] The inCode Report and the JSC Report both purport to show AIS interference to PC analog and digital receivers. The inCode Report also includes a study of PC transmitter interference to AIS receivers. The reports use different test methodologies. The voice and data tests in the JSC Report were performed in a benign environment, eliminating the impacts of the surrounding RF environment.[172] The inCode Report used a combination of free space calculations along with calculations taking into account free space loss, fading and other "design characteristics" that were not defined in the inCode Report.[173] The JSC Report provided greater detail on how it established interference parameters and on the technical characteristics of the radios used in the tests.[174]

43. Assuming AIS shore station operation in "high seas" simplex mode using Channels 87B and 88B, the inCode Report used four interference levels to determine the impact on a PC analog receiver: very low, low, medium and high.[175] The levels were based on the interference to "Harvard phrases" sent from the PC transmitter.[176] However, there is insufficient information in the inCode Report to ascertain how the different levels were determined. This makes it difficult to compare the results of the inCode Report to the results of the JSC Report. The inCode Report indicated "high" interference to a PC analog voice receiver.[177] For the tests determining interference to a PC data receiver, the inCode Report

---

(...continued from previous page)
Tittle Reply Comments at 2. We elsewhere ask for comments specifically addressing the potential impact of our proposal on site-based incumbent VPC licensees. *See* ¶ 65, *infra*.

[169] Pursuant to the express language of the *VPC Third Report and Order* and 47 C.F.R. § 80.371(c)(3), MariTEL was on notice that if negotiations to identify the narrowband AIS channel pairs failed, it would have to set aside narrowband channel pairs selected by the Commission.

[170] *See* "Interference Considerations of Simplex Operation 1371 AIS Technologies With Respect to MariTEL's Spectrum," inCode Telecom Group, Inc. (October 2003) (inCode Report). In addition, MariTEL has discussed the commercial ramifications of AIS interference in several *ex parte* presentations, all of which have been incorporated in the record of this proceeding.

[171] *See* "EMC Analysis of Universal Automatic Identification and Public Correspondence Systems in the Maritime VHF Band," Joint Spectrum Center, Department of Defense (February 2004) (JSC Report).

[172] *Id.* at 1-4, 1-5.

[173] *See* inCode Report at 15.

[174] *See* JSC Report at 1-4, 2-1 and 2-2, including appendices B and D.

[175] *See* inCode Report at 15.

[176] While it is not explicitly stated in the inCode Report, it is assumed that "Harvard phrases" refers to material in the report, "The Intelligibility of Interrupted Speech," Psycho-Acoustic Laboratory, Harvard University, Cambridge, Massachusetts, October 22, 1949.

[177] We note that the measurements of interference to analog voice communications are of limited relevance to the present controversy because of MariTEL's exit from the voice market and its intention to provide a data-only service in the future. We nonetheless discuss briefly the conclusions of the two reports with respect to voice

(continued....)

provided plots showing different levels of data throughput for varying levels of AIS signal into the receiver. The plots show throughput levels reduced by up to fifty percent for a 8500 bps baseline.[178] The inCode Report concluded that there is a "distinct probability of interference problems" to the AIS system from VPC radios operating in the vicinity of the AIS transponder, and that VPC radios would also suffer interference from the AIS system on the shipborne unit.[179] The inCode Report also concluded that obtaining enough vertical separation may be impractical due to the "severity of transmitter noise interference levels identified;" that adjacent channel interference "will severely hamper the ability of the AIS system to 'listen' to boats in the open seas and could very well destroy operations all together;" and that joint planning and implementation is warranted to address these interference issues.[180]

44. The JSC Report also indicated interference to PC voice and data communications, but at significantly different levels than indicated in the inCode Report. The JSC Report used articulation scores (AS) to determine the levels of interference.[181] The JSC Report indicates that under near-perfect conditions, the maximum AS attainable is about ninety-five percent.[182] It also indicates that an AS of eighty percent enables a listener to understand every sentence without significant effort. The JSC Report recorded a worst-case AS of 93.1, compared to a baseline AS of 95.3 if AIS is not a factor. The JSC Report also examined the interference potential of AIS to a PC data receiver with no error correction. It recorded a worst-case bit error rate of 3.1×10^{-2} bits per second, with a baseline of less than 1×10^{-6} bits per second if AIS is not a factor.[183] This corresponds to a worst-case bit rate of approximately ninety-seven percent, a significant difference from the fifty percent worst-case throughput indicated in the inCode Report. The JSC Report also concludes that "the use of FEC [Forward Error Correction] codes and block interleaving in the receiver should allow it [to] operate normally in the presence of AIS emissions."[184]

45. In its cover letter accompanying the JSC Report, NTIA states that it has been recognized for many years that paging transmitters operating in the 152-153 MHz and 157-158 MHz bands and National Oceanic and Atmospheric Administration (NOAA) weather radio transmitters in the upper adjacent Federal Government band interfere with VHF marine radio receivers.[185] NTIA also observes that the RTCM formed a special committee comprised of government and non-government experts – RTCM SC 117 – to address this problem.[186] The committee produced a voluntary standard for marine radios that

(...continued from previous page)
communications as well as data communications because they may be relevant to the issue of AIS interference to and from incumbent site-based VPC operations.

[178] *See* inCode Report at 18-19.

[179] *Id.* at 23.

[180] *Id.*

[181] *See* JSC Report at 1-4. The AS methodology incorporates statistical methods to determine the intelligibility of words. Each word is "symbolized" into a number of phoneme fragments, or elements.

[182] *Id.*

[183] *Id.* at 2-4, Table 2-3. This value is based on a horizontal antenna separation of ten feet.

[184] *Id.* at 3-2.

[185] *See* Letter dated Feb. 26, 2004 from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA, to John B. Muleta, Chief, Wireless Telecommunications Bureau, FCC at 1-2 (*NTIA Cover Letter*).

[186] *Id.* at 2.

significantly improves VHF marine receiver performance.[187]

46. NTIA concludes, "The current state-of-the-art in digital radio communications provides mitigation techniques that would provide adequate protection against this potential AIS interference to MariTEL's proposed data service. Given the congested radio environment in the VHF band, MariTEL would likely need to employ these mitigation techniques even if no AIS operations were present."[188] MariTEL disputes the conclusions of NTIA and the JSC Report that the use of FEC codes and other methods is a reasonable and adequate solution to the identified interference issues. MariTEL says this solution is not commercially viable and would impair future product capabilities. According to MariTEL, "Any requirement to implement FEC codes severely limits MariTEL's wireless data business plans due to the difficulty of providing new and innovative higher-bandwidth applications to the maritime industry."[189]

47. We tentatively conclude that the ability of MariTEL to incorporate FEC codes and block interleaving to prevent interference to VPC data transmissions further undermines its claim that designating Channels 87B and 88B for AIS will preclude any opportunity for MariTEL to take commercial advantage of the VPC spectrum it acquired at auction. As NTIA points out, FEC and interleaving techniques are used by public safety entities in the land mobile radio service to mitigate the effects of that congested signal environment, and digital selective calling radios employ FEC and interleaving in the marine environment.[190] It may add to MariTEL's costs of doing business, but we do not think it is beyond the bounds of reasonableness, especially in a spectrum environment posing a significant interference challenge even in the absence of AIS, if MariTEL finds that it needs to incorporate state-of-the-art technology in order to operate at the minimum throughput levels it believes are essential for commercial success.[191] We invite comment on this tentative conclusion and on all aspects of the inCode and JSC interference analyses, including the reasonableness of their assumptions, the accuracy of their methods, and the validity of their conclusions.

48. In addition, we believe that, regardless of whether we designate Channels 87B and 88B for domestic AIS use, MariTEL's ability to use Channels 87B and 88B for non-AIS communications potentially could be limited in coastal areas because of the use of those channels for AIS in international

[187] RTCM Paper 87-99/SC117-STD (Oct. 10, 1999). We note that the RTCM SC 117 standard applies only to voice communications, and is therefore not relevant to MariTEL's proposed data offerings. We cite it here simply as evidence that concerns about the interference environment in the marine VHF bands have existed for some time, and to an extent warranting formal standards-setting efforts to address those concerns.

[188] *NTIA Cover Letter* at 3.

[189] *See* MariTEL Reply Comments re Sharing Proposal at 12. MariTEL claims that the "significant commercial challenges" associated with the employment of FEC include a roughly forty percent reduction in channel throughput, plus the time and expense of developing new maritime devices instead of being able to use commercial off-the-shelf devices. *Id.* at 11-12.

[190] *NTIA Cover Letter* at 3.

[191] We note that the emissions mask and out-of-band emissions limitations for AIS, as specified in IEC 61993-2, Section 15.1.3, are more stringent than those applicable to similar equipment that may be certified for operation under Part 80 of our Rules. For example, at a frequency 25 kHz removed from the center frequency of the emission, *i.e.*, at the center frequency of the adjacent channel, the IEC standard requires the emission to be attenuated 70 dB below the carrier power. Under Part 80, in contrast, such an emission is only required to be attenuated 35 dB below the carrier power. *See* 47 C.F.R. § 80.211(f). Further, the spurious emission limit for AIS emissions, excluding the channel on which the transmitter is operating and its adjacent channels, is -36 dBm. The corresponding limit for non-AIS Part 80 equipment is 43 + 10 log (p), or -13 dBm for emissions removed from the center frequency by more than 62.5 kHz. *Id.* Therefore, the emissions profile for AIS devices is significantly more stringent than the emissions profile for devices typically authorized under Part 80, including devices used for public correspondence. Notwithstanding the interference issues related to ship transmission on the "B" side, we believe this point is significant.

waters[192] or conceivably even by vessels exercising the right of innocent passage in U.S. waters.[193] U.S. territorial waters extend twelve nautical miles from the shore.[194] However, AIS transmission ranges at sea typically reach at least twenty to thirty nautical miles depending on antenna.[195] Thus, vessels on international voyages would be transmitting AIS communications on Channels 87B and 88B as they approach the AIS fence, since they would not switch to another channel in any event until the ship is within VHF range and contacted by a Coast Guard shore station. These AIS transmissions could have the potential to cause interference to VPC communications on Channels 87B and 88B while the vessels were between twelve and twenty nautical miles from shore, and likely at even greater distances. We request comment on the extent, if any, to which the use of Channels 87B and 88B for AIS by vessels in international waters potentially may cause interference to, or otherwise restrict, domestic VPC operations on Channels 87B and 88B. If such interference would be significant, it further reduces the potential effect on MariTEL of a domestic designation of Channels 87B and 88B for AIS.[196]

49. For the above reasons, and after reviewing the comments submitted in response to the various public notices, we tentatively conclude that there is no basis in public policy or equity either to forego designating Channels 87B and 88B for AIS in order to protect MariTEL's interests or to provide some mechanism to compensate MariTEL if we do so. We believe that the action we propose here is essential to public safety, a reasonable regulatory response to changed circumstances, does not limit the licensed VPC spectrum available for MariTEL's proposed data offerings to any greater degree than would the designation of four narrowband offset channels, does not unfairly undermine MariTEL's reasonable investment-backed expectations, and does not undermine the integrity of the auction process. We invite comment on these tentative conclusions as well as on our overall proposal. In addition, we encourage the Coast Guard and Maritel to cooperate in an effort to avoid interference to and from AIS and VPC operations, and to take reasonable measures to remedy any instances of interference that occur. Should

[192] *Accord* Nauticast Comments at 10 (averring that Channels 87B and 88B will not have any significant commercial value to MariTEL in any event because they will be utilized for AIS in international waters); *see also* MMC Comments at 4.

[193] The "right of innocent passage" is defined in Section 3 of the Convention on the Territorial Sea and the Contiguous Zone, which is part of the 1982 United Nations Convention on the Law of the Sea. The right of innocent passage is accorded to ships of all States subject to the Convention. Under Article 18 of Section 3, passage means "navigation through the territorial sea [of a coastal State] for the purpose of: (a) traversing that sea without entering internal waters or calling at a roadstead or port facility outside internal waters; or (b) proceeding to or from internal waters or a call at such roadstead or port facility." Article 19 specifies, "Passage is innocent so long as it not prejudicial to the peace, good order or security of the coastal State." It then lists a number of activities that shall be considered prejudicial, including "any act aimed at interfering with any systems of communication or any other facilities or installations of the coastal state." However, Article 21 provides that coastal States may adopt rules and regulations pertaining to, *inter alia*, the safety of navigation and the regulation of maritime traffic, and that foreign vessels exercising the right of innocent passage through territorial waters shall comply with all such rules and regulations. We assume that, under current U.S. policy, the right of innocent passage could allow foreign vessels to use Channel 87B for AIS in U.S. waters. *See* United States Proposed Modifications to the Draft ITU-R Conference Preparatory Meeting for WRC-03, November 1, 2002, Document CPM02-2/08E. We ask commenters to address the extent to which the use of Channel 87B for AIS by foreign vessels on innocent voyage within U.S. waters could restrict the use of that channel for VPC communications.

[194] *See* Presidential Proclamation No. 5928, 54 Fed. Reg. 777 (1988); 50 U.S.C. § 50.195(2).

[195] *See* IMO Resolution A.917(22), Annex ¶ 9; *see also* Nauticast Comments at 10 (stating that AIS signal range is twenty to fifty miles).

[196] The development of ITU-R M.1371-1 began in March 1998, and the standard was not approved until August 2001. In Annex 2 of the standard, Channels 87B and 88B – which are also listed as 2087 and 2088 respectively, the ITU number extension given for channels used in the wideband simplex mode – are designated as the required default channels for AIS. ITU Working Party 8B (WP8B), which developed ITU-R M.1371-1, conducted domestic working party meetings in which there was an opportunity for public comment on the standard.